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London, 9th June, 1890.

NOTICE OF REMOVAL.

Messrs. FUERST BROTHERS desire to thank their numerous friends for past support, and have to inform them that, owing to the rapid growth of their business, they have found it necessary to secure more extensive and convenient premises. On and after this date, therefore, their address will be

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Telegrams:—"FUERST LONDON." Telephone No. 1050.

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A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JUNE 14, 1890.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

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1.—**LONDON, N.** Dispensing and Retail Business of good-class; established many years; returns at the rate of £1,200 to £1,300 yearly; *with very good profits*; well-fitted shop with good appearance and good stock; the house contains 6 rooms, and shop with private entrance, warehouse, &c.; full investigation permitted; price £1,100.

2.—**LONDON, S.E.**—Capital investment for a good pushing business man; Retail and Dispensing Business; old-established concern; returns nearly £1,350; *profits very good*; full investigation permitted; very comfortable house; rent very moderate; on lease; price about £1,250; prompt buyer will be liberally treated.

3.—**LONDON, N.W.**—Handsomely-fitted shop; good Retail and Dispensing Business; returns £500 yearly; 6-roomed house and shop; held on lease; rent £70; immediate possession; price £400.

4.—**LONDON, N.W.**—Retail and Prescribing Business; returning between £500 and £600 yearly rate; single-fronted well-fitted shop with large house; price £400; trial allowed if wished.

5.—**LONDON, N.W.**—Dispensing and Retail, situate in main road; returns chiefly cash; between £900 and £950 yearly; *profits very good*; single-fronted shop, good appearance; house held on lease 16 years unexpired; price £900.

6.—**LONDON (Suburb).** Near Crystal Palace, good-class Retail and Dispensing; established many years; returns about £520 yearly; *profits fully up to the average*; well-fitted shop and good house, with private entrance, held on lease; good garden attached to house; price about £500.

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8.—**SEASIDE (South Coast).**—Handsomely-fitted shop; returns between £1,300 and £1,350; *profits large*; good stock; premises are held on lease; everything in good working order; inspection invited; price required about £1,100.

9.—**KENT.**—Situate in a good-sized town.—Retail, Dispensing, and Prescribing Business, with a good proportion of proprietary articles, rendering the business both safe and profitable; returns over £800 yearly; shop is well fitted and thoroughly stocked; house in good condition; small garden attached; rent £42, on lease; price £750

10.—**SUFFOLK.**—Mixed Country Business; very old established concern; returns £2,000, including small Wholesale, which can be extended; excellent premises, held on lease at low rental; capital investment, and nucleus of an extensive trade; small premium only required; stock at valuation; about £1,500.

11.—**SURREY.**—Situate in a very pleasant locality; Retail and Dispensing, first class; returns £800 yearly; *profits above the average*; the shop is handsomely fitted, and stock good; comfortable house and good garden, with stabling; rent very moderate, held on lease; price £750.

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13.—**SOUTH COAST.**—Lock-up shop; situate in a fashionable watering-place; returns £200; established only a short time; good and satisfactory reasons for selling, which will be furnished; fittings and stock at cost price.

14.—**COUNTRY** Wholesale and Retail, with *good substantial profit*; it is essential that the purchaser should possess the "Major qualification"; investment required £4,000; particulars will be furnished in confidence; references will be required as preliminary.

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Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

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Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

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TO BE SOLD, at about half value to immediate purchaser.—The fixtures in mahogany, shop-bottles, &c., of a Pharmacy, comprising handsome dispensing-screen, wall and counter cases, nest of drawers, utensils, and small saleable stock; all new three months ago. "Chemist," 210 Camberwell Road.

TO Chemists commencing.—For immediate disposal, very cheap for cash; splendid fixtures and small stock, and York Glass Company's recess bottles; the above is an exceptional offer, as nothing reasonable will be refused. 99/40, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO CHEMISTS FITTING UP.—Drawers, Counters, Show-cases and Carboys, &c.—For Sale, one 12-ft. range new mahogany drawers, with plate-glass labels and knobs, £9; one 12-ft. ditto, pine drawers, gold labels and glass knobs, £6 12s.; one new bent tooth-brush case, 25s.; three 3-gallon, 9s. 6d.; four 4 gallon, 12s.; and three 6 gallon carboys, 15s. 6d. each; 180 shop rounds and jars, gold-labelled, £9; plate-glass counter show-case, 36 × 18, 35s.; 6-ft. dispensing-screen, mirror centre and marble slab, £5 10s.; ditto, new design, £7 10s.; good bent-front brush-case, 21s.; mahogany wall case, 60 × 47, 55s.; 24 2-lb. blue jars, labelled, 36s.; 12 3-lb. ditto, 24s.; 12 4-lb. best pink ditto, labelled, 5s. each; 6-ft. bent-front case, good second-hand, £4 10s. R. Tomlinson & Sons, Medical Fitters, Bond Street, Birmingham.

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WANTED, for £250 to £350, a Retail, Dispensing, and Prescribing, doing £8 to £9 with room for increase, in small town, Midlands, South, or South West preferred; good, comfortable home required. Apply, "Taeog," care of Mr Druce, Pharmaceutical Chemist, Oxford.

ADVERTISER is open to purchase a genuine medium class Business returning not less than £1,000 per annum; Midland or Home county preferred; good house essential; chemists who contemplate retiring are invited to send full particulars, which will be received in strict confidence to "Cetaceum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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SUFFOLK.—No opposition; Retail and Prescribing Business; returns £800; steadily increasing; rent £15; good house, warehouse, stable, &c.; price £500; satisfactory reasons for selling.

HAMPSHIRE.—Old-established Retail and Dispensing Business; returns £700; net profit, £300; large house; low rent; price £600.

WEST OF ENGLAND.—High-class Dispensing Business; returns about £1,200 at full prices; same hands many years; owner retiring; price £1,200, or offer; good introduction.

KENT.—Unopposed good-class Retail, Dispensing and Prescribing Business, returning £600, net profit, £260; rent £21; good house and garden; taking larger business; price £550.

WARWICKSHIRE.—Small country town.—Light Retail Business; returning £850; net profit over £300; good house; large garden; price £500.

WILTSHIRE.—Light Retail and Dispensing; returns £500, has done £800; good house and garden; price £350, or offer.

SOUTH-WEST OF ENGLAND.—Good-class Retail and Dispensing; returns £1,300; good house; large garden; price £1,000.

CAMBRIDGE.—Unopposed Retail and Prescribing trade; returns £5 a week; rent £18; good house; large garden; price £100.

LONDON, W.—Unopposed Retail, Dispensing, and Prescribing Business; returns £700; same hands 10 years; low rent; good house; very few patents; price £350; bargain.

LONDON (6 miles out).—Very handsome Pharmacy, in good position; making £450 yearly net profit; same hands many years; price £850, or offer.

LONDON, N.—Same hands 25 years; returns £5 weekly, all Retail, rent £25; retiring through age; price £150, or offer.

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BUSINESSES FOR DISPOSAL.

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PRETTY little Chemist's shop; rent low; just closed. Apply, 118 Lower Park Road, Peckham.

SCARBOROUGH.—Retail to be sold cheap; good position; satisfactory reason for disposal; portion sublet, leaving rent nearly nil. Humphries & Co., Chemists, Bradford.

GENUINE Chemist's and Druggist's Business for disposal; present proprietor 42 years; retiring to the country; trade might be doubled by an energetic young man; price £300. Apply at 65 Old Street, E.C.

NORTH OF ENGLAND.—Branch Retail (neglected); corner shop; busy thoroughfare, good working-class neighbourhood, centre of manufacturing town; well situated for doing good prescribing business; suit beginner or anyone with small capital; rent £30; returns about £4 per week; price £70. Write, "Cochineal," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE, Wholesale and Retail Chemist's and Druggist's Business; established half century; large dispensing trade, high class; good and saleable stock; important and commodious shop and premises, well fitted, at low rent; situate in centre of town, on borders of populous works district, and fine country; or proprietor would take a partner (qualified). Principals only, 69/27, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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MIDLANDS.—Retail and Dispensing, with a little heavy trade; returns £2,000 yearly; very profitable; price £1,200.

DEVON.—Branch Retail and Dispensing, under a Junior; returns £250; great scope for increase; price £250.

DORSET.—Light Retail and Dispensing; returns £600; low rent; price £500; long lease; good house and garden.

DEVON COAST.—Good-class Dispensing and Light Retail; returns £600; price £500; rent £50; large house; plenty of scope for increase.

GLOUCESTERSHIRE.—Old-established Retail and Dispensing; returns £800; rent £30; price £700; worth attention.

LONDON, S.W.—Good-class Dispensing Business in main thoroughfare; returns £1,400; price £1,400; handsome pharmacy; large house.

LONDON, N.W.—Retail and Prescribing Trade in thickly populated locality; returns £450; price £350; net profit £200.

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Immediately, in a market town in Suffolk, a genuine Business; old established and in good working order; no opposition within four miles; present returns £920; price £1,000; this forms a splendid chance for a good business man.

In a Watering-place in Essex an old-established Business; present returns only nominal, in consequence of want of capital, but can be largely increased by any business man with moderate means, as there is no opposition for some miles; price, stock and fixtures by valuation.

Re BARKER, GREAT YARMOUTH.

Under a deed of assignment in order to realise quickly, the Trustee is prepared to sell the stock by valuation, subject to discount as arranged, or open to an offer; the rent is low, and fixtures can be hired or purchased at the option of the incomer.

In rising Watering-place on East Coast a rapidly improving Business; returns last year £650; price £500; rent £50, half of which can be returned by letting in the season.

FOR TERMS AND PARTICULARS APPLY AS ABOVE.

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TO CHEMISTS, &c.—Nice Suburban Business; rising neighbourhood; suitable for assistant just starting; rent low; fixtures and stock at nominal price; owner leaving England through ill-health. Wood & Kirby, 1 Great James Street, Bedford Row, W.C.

YORKSHIRE.—Light Retail and Prescribing; returns over £700; large house; best position in town; rent low; net profits £270; opening for dentistry; full investigation allowed; price £550 cash. A.B., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON S.W.—For immediate Disposal, a genuine Retail and Prescribing Business in good and increasing neighbourhood; no opposition, a rare opportunity for a beginner; price about £200. For particulars apply to "Dido," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, W.—Old-established Business in main thoroughfare; doing under management £7 10s., could be easily increased by personal attention; handsome corner shop, well fitted; good house, over half rent let off; house and shop in thorough repair; cash price £300. R. O., 33 Bessborough Gardens, S.W.

BRANCH for sale in one of the best positions of densely-populated town ten miles from Charing Cross; proprietor, being unable to give it any attention, will sell for £110; a little personal supervision only needed to make it a great success. "Iota," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MIDLANDS.—Country town.—For immediate disposal an old-established Light Retail Business; returns over £300, capable of increase; good opening for Dentistry; good house and premises, with garden; every investigation allowed. 99/37, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MIDLANDS.—Suburb of large town.—Light Retail Business, returning £700, to be sold for about the value of stock and fixtures: £450 required; no cutting, good profits, working expenses very low; investigation courted. For further particulars apply to "Pepsine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£1,000.—Old-established, Dispensing, Prescribing, and Light Retail in a market town, South of England; returns nearly £1,000; net profits over £300 clear; rent low; good house; same hands many years; retiring; price £600 cash. Replies addressed to J. H. L., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£1,500 RETURNS.—Death vacancy; South Midlands; unopposed Mixed Country Business, returning £1,500; well fitted, heavily stocked; good house, garden, warehouse; will sell either by valuation or lump sum; about £800 required; must be sold at once. Full particulars from "Exors," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, W.—Profitable Retail and Prescribing Business; returns £5 per week; rent £40, let off £28 10s.; private entrance, garden; price £150. "Chemicus" care of Messrs. Davy, Yates & Routledge, Wholesale Druggists, 64 Park Street, Southwark, S.E.

AN Improving Business, Light Retail and Dispensing, in S.W. district; established about 3 years; handsome shop mahogany fittings; large house, convenient for letting off; low rent; long lease; price about £500 Apply in first instance, to F., Hearon, Squire & Francis, 38 Southwark Street, S.E.

LANCASHIRE.—A Retail and Prescribing Business, in a large town in Lancashire; returns about £400; post-office attached, worth about £35 per annum, to be sold at a sacrifice; no reasonable offer refused; proprietor taking larger business; must be sold. "Rhel," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DEATH Vacancy.—For immediate disposal, owing to the death of the proprietor, a genuine Retail and Prescribing Business in S.E. London good house and business premises, with long lease; a good opening for Dentistry; cash only £350 trams and omnibuses pass the door. Full particulars from J. T. B., 40 Aldersgate Street, London.

ESSEX.—An old-established Retail and Dispensing Business, returning under a manager nearly £600 a year; very profitable, and capable of considerable extension; low rent and a good house; price £375; the shop stands well in the high street of market town. Full particulars upon application to "Essex," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

S.W. OF ENGLAND—Unopposed Retail and Prescribing Business for sale, on account of ill-health; same hands 28 years; returns £300, half profits; large house, garden, and stores; rent £20; dentistry combined would largely increase the returns; price £275. Apply, T. F. O., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£300, or open to offer.—Thriving manufacturing town in Lancashire; genuine old-established Business, Retail, Prescribing, and small Wholesale; very profitable; has been neglected; returns under assistant about £360; owner cannot attend to it; stock and fixtures worth the money. Further particulars from "Alpha," care of I. Thompson, 58 Hanover Street, Liverpool

GOOD Yorkshire town. General, Retail, Prescribing, and Teeth Extracting; returns £40 to £50 monthly; splendid house, and every convenience; old-established; only intending purchasers are asked to apply; every investigation allowed; price £350, or offer; cash buyer wanted. Apply, "North Yorkshire," Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

SURREY.—Unopposed country Business; charming locality; no other within a radius of 6 miles; full prices; established 5 years; improving; owner taking to a larger; convenient house, newly papered and painted; shop nicely fitted and exceedingly well stocked; garden stocked with fruit trees; warehouse and stable; price £275 cash. "Ardrossan," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

GENTLEMANLY Assistant wanted; time for study; books found, and help given; salary. S., Orpington, Kent.

WANTED, reliable Outdoor Assistant Apply, from 1 to 3, or after 5 P.M. Mr. Rogers, 108 Rye Lane, Peckham.

WANTED a qualified Assistant as Junior; state salary required. Apply, Philip Harris & Co. (Limited), Wholesale Chemists, Birmingham.

IMMEDIATELY, a Junior or Improver of fair Counter experience. Apply, stating full particulars, references, to C. Amoore, 6 Castle Street, Hastings.

QUALIFIED Assistant (outdoors), with knowledge of French. Apply by letter, stating salary required, experience, &c, H. Cooper, 24 Greek Street, W.

A QUALIFIED Assistant, well up in Dispensing; short hours and no Sunday duty. Apply to the Manager, Drug Department, 105 Victoria Street, Westminster, S.W.

QUALIFIED Junior; must have been accustomed to good class business. Apply, with full particulars, to J. Selley, 142 Earl's Court Road, South Kensington, S.W.

IMMEDIATELY, a qualified Assistant, about 23 or 24, indoors; good references indispensable. State salary required, and send photo, to T. A. Clarke, Chemist, Horncastle.

TRAVELLERS calling on Grocers, Oil and Colour Men, and Chemists (town and country), who can take an extra Commission, should apply B. W. F., *Observer* Office, Lancaster.

FOR Japan.—Qualified English Assistant; about 25; first-class London experience and references indispensable. Apply by letter to Dakin Bros., Creechurch Lane, Leadenhall Street, London, E.C.

WANTED immediately, an Assistant (Minor), about 24; total abstainer. Apply, with full particulars, enclosing photo, which shall be returned, to T. E. Pearce, Chemist, Tavistock.

DISPENSER and Bookkeeper wanted in beginning of July for high-class private practice 10 miles from London; free house, rates, taxes, gas, and water; qualified Chemist; middle-aged; married, without family, and one seeking permanency preferred. The strictest inquiries will be made as to capabilities, steadiness, and trustworthiness. Apply, in writing in the first instance, stating age, experience, how last employed, salary expected and giving three references as to character, to X., care of General Apothecaries' Company, 49 Berners Street, London, W.

WANTED a young man for a newly-opened branch shop. Apply, stating salary required to D. Christie, 44 Park Lane, Leeds

WANTED, Wholesale, a Junior for the liquid counter. Apply, stating age and salary required, &c., to "Drugs," 32 Market Street, York.

WANTED, a thoroughly competent Dispenser. Apply with full particulars as to age, experience, and salary required, to J. Stainer, Folkestone.

IMMEDIATELY, qualified, competent Junior Assistant, aged about 26, for good Dispensing and Retail business Apply, with particulars, Deacon & Hewlett, Beckenham, Kent.

ASSISTANT (indoors); good references. Apply, with full particulars, stating salary required, to "Alpha Beta," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C

ASSISTANT (Junior), wanted at once in good class Dispensing and Retail. Apply, stating age, salary, and usual particulars, Buckley & Co., 111 Earl's Court Road, Kensington, S.W.

IMMEDIATELY.—In a Mixed country business, a Junior Assistant; one just out of his time; no heavy work; hours of business easy. Apply to Johnson Oripps, Chemist, Reepham, Norfolk.

WANTED, a Dispenser for Drug Department, at once; good hours; no Sunday duty; state age salary, and references. Heatley, Janisch & Co., City Drug Store, Newcastle-on-Tyne.

COMPETENT and trustworthy Assistant, about 22 or 23; member of a Christian Church preferred. Apply, giving full particulars and enclosing carte, to W. Mann, Chemist, Clacton-on-Sea.

WANTED at once, an Assistant, about 23 (indoors), with Minor qualification; also a Junior. Apply, with full particulars and carte (to be returned), to J. Johns & Son, Southampton.

IMMEDIATELY, an Improver or Junior. State age, height, salary, reference, also enclose photo, to Frederick James Lea, Dispensing and Family Chemist, the Folkestone Pharmacy, Folkestone.

WANTED, qualified Manager for Branch; aged 26 to 30; one who has some knowledge of a Mixed country trade preferred; good reference indispensable. Sherriff, Chemist, Paignton, South Devon.

BRANCH Manager. At once, during illness of proprietor, in a small country town in West Riding. All particulars to Thos. Haigh Connor, Doncaster. Letters not answered in a day or two declined.

WANTED, immediately, a good Junior Assistant (indoors) for Mixed business; short hours; no Sunday duty. Apply, stating age, height, salary required, and references, to J. H. Dickinson, Chemist, &c., Huddersfield.

ASSISTANT, Minor; aged about 22; indoors; salary £45 per annum; all-round experience; hours 8.30 A.M. to 8 P.M.; alternate duty. Apply, with full particulars, The Liverpool Apothecaries' Co. (Limited), 4 Colquitt Street, Liverpool.

DOCTOR SARGENT, Dorrell Place, Brixton Railway Station, London, requires an Assistant able to Extract Teeth and attend Druggist's Retail. Dr. Sargent having taken another shop and surgery, would prefer a young man for a permanency.

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ISLE OF MAN.—A competent Junior required, immediately; one accustomed to a good Mixed-class trade, willing to make himself generally useful; only one kept. Apply, stating age, height, references, and salary required (with photo), to Lawrence, Chemist, Peel.

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WANTED, Manager, about 30 (qualified); must be reliable, energetic; obliging, and a good Prescriber; good references indispensable. Also Junior Assistant, about 18; must be active and energetic, and of agreeable manners. Apply, stating age, height, and salary required, with photo, to J. & J., care of Messrs. Goodall, Backhouse & Co., White Horse Street, Leeds.

MANAGING Assistant, not under 35; must be accustomed to quick counter prescribing, and be an able prescriber; active and reliable; permanency and good salary offered; hours 8.30 to 9.30, Saturday, 11.30; one evening off at 6 P.M.; alternate Sunday evenings. Full particulars, with photo, "South Wales," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED a qualified Assistant to take charge of Branch; Extractor; state age, references, and salary required, in or outdoor; send carte (to be returned); not answered in three days, declined. Stevens, Chemist, Dover.

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WANTED, a Junior Assistant; indoors; one used to country business preferred. Apply, stating age, height, salary required, references, &c., enclosing photo (to be returned), to W. E. Stokes, Chemist and Mineral Water Manufacturer, Brompton, Chatham.

A DISPENSER, qualified, by a firm of high-class Chemists within the metropolitan area; a comfortable home and good progressive salary to a reliable man with good experience. Apply, by letter, enclosing photo, to A. W., care of Messrs. Wright, Layman and Umney, Southwark, S.E.

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WANTED, Assistant (indoors); Minor qualification; about 24; good Dispenser and Salesman; if able to extract teeth, preferred; comfortable permanency; hours 8 to 8, one evening off weekly; full particulars, giving references, stating salary required, and enclosing photo (to be returned); two kept. Cowan, Chemist, Star Hill, Rochester.

WANTED, Assistant (indoors); Minor qualification; about 24; good Dispenser and salesman; if able to extract teeth, preferred; comfortable permanency; hours 8 to 8.30, one evening off weekly; full particulars, giving references, stating salary required, and enclosing photo (to be returned), two kept. A. Shepperley, Pharm. Chemist, Market Place, Nottingham.

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IMPROVER, to make himself generally useful; comfortable home; no salary; aged 18. W. L. Gilson, Swan Street, Loughborough.

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TO THE ELECTORS OF THE EXECUTIVE COUNCIL OF THE NORTH BRITISH BRANCH OF THE PHARMACEUTICAL SOCIETY.

GENTLEMEN,

Having been nominated as a candidate for the executive of the North British Branch of the Pharmaceutical Society, I have decided to offer my services to the members and associates in Scotland as one of their representatives.

Being personally unknown to many of the electors, it would be unwise, for one untried in pharmaceutical politics as I am, to promise any extravagant reformation in any one of our indisputable grievances. But, in justice to you, I consider it my duty to lay before you a general outline of my views. I shall, if elected, always act independently. I believe that there are already more than sufficient councillors on both the London and Edinburgh boards able and willing to look after all necessary educational matters, and that trade interests undoubtedly require a much larger share of attention than they have received hitherto. This, I think, is conclusively proved by the great majority who keep up no connection with the Society.

While the Limited Liability Act lasts, co-operative traders will always more or less, exist. But I would strenuously support any measure calculated to bring them more within the scope of existing Pharmacy Acts.

I firmly believe that Scotland, to be adequately represented on the London Council, requires not less than two representatives. As the Society is financially at a very low ebb, and will be for many years to come, economy must be rigidly practised, and means taken to further augment the revenue.

The foregoing is a brief outline of my views on matters pharmaceutical which at present most closely affect the interests of pharmacists; and should they coincide with your own, I shall be glad to have your hearty support.

I am, Gentlemen,
Faithfully yours,
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Pharmaceutical Chemist.

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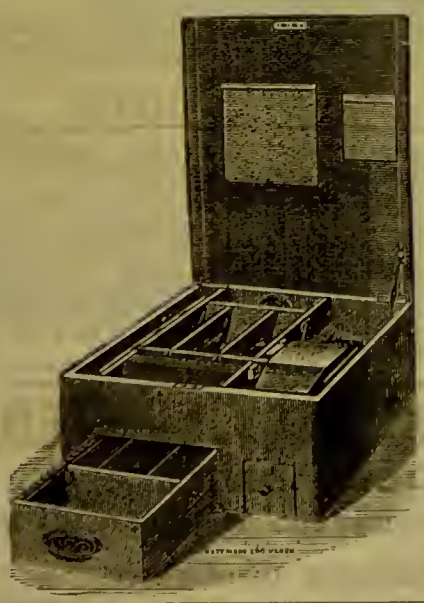

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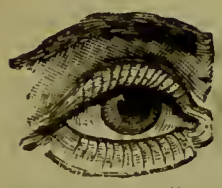

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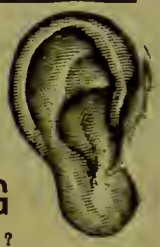

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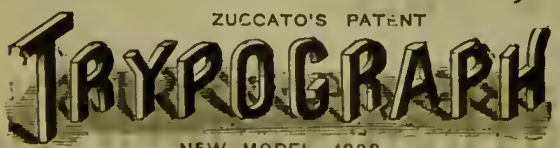

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1. As to the first objection, we reply that "VINOLIA" is simply an emollient cream, charged with a trace of innocuous antiseptics, and that it should not be expected to *cure* skin diseases. By reason of its soothing action it allays Itching and Burning as soon as applied; and this, in addition to being a perfect protective from the air, renders it of extreme value in a host of minor skin ailments, and indirectly leads to a recovery in a large percentage of cases. In Acute Eczema, Sunburn, Insect Bites, Blisters, Chafes, Burning, Prickly Heat, &c., it is everywhere prescribed.

2. As to the second objection—that it is expensive. Suppose a medical man is asked to recommend a pleasant cream for general use by travellers, and in the household for slight troubles of the skin such as those already mentioned. If he were to write out a prescription which would in any way tally with "VINOLIA" it would cost more than this, and could not possibly be made so perfectly in any retail shop.

"VINOLIA" POWDER.

Soothing, Soluble, and Safe.

AN UNRIVALLED ROSE DUSTING POWDER FOR THE COMPLEXION, NURSERY, USE AFTER SHAVING, &c.

Adheres well, does not Stop the Pores, Protects and Preserves the Skin.
For Weeping Surfaces, Sweating, Sore, and Tender Feet, Blisters, Chafes, Skin Irritation.
Used in Washing it is delightfully Refreshing and Antiseptic.

OF ALL CHEMISTS.

"VINOLIA," 1s. 9d. "VINOLIA POWDER," 1s. 9d.
"VINOLIA" SOAP, Balsamic, 8d., and Otto of Rose, 10d.
"VINOLIA" SHAVING SOAP, 1s. 6d. and 2s. 6d.

SAMPLES OF VINOLIA, V. POWDER, & V. SOAP FREE TO MEDICAL MEN.

BLONDEAU ET CIE., Ryland Road, London, N.W.

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of ½d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as *e.g.*, £1 10*s.* 6*d.*

FOR DISPOSAL

Literature.

The *Chemist and Druggist*, also *Pharmaceutical Journals* from 1873 to 1890, a few missing; no reasonable offer refused. 95/41.

Educational.

Tully's 7*s.* 6*d.* "Herbarium," price 5*s.* 99/16.

1888 (reprint) B. Pharmacopœia; good as new; what offers? 99/18.

10 vols. *Year-Book Pharmacy*, 1874-1883, lot 10*s.* 6*d.*, exchange. 100/14.

Chemist since 1860, odd, monthly 114, weekly 140, to 1890, 30*s.* the lot; *Journal*, 300 odd, 20*s.*, or offers; singly, 1½*d.* and 4*d.* each: Diaries, 2*s.* J. T. Williams, Coleford.

Bentley's "Botany"; "British Pharmacopœia," 1835; "Selecta e Prescriptis" (Pereira's); Wills' "Smaller Materia Medica"; Wills' "Pharmacy"; in good condition, second-hand. Cawthorn, 40 High Street, Gateshead.

Dental.

Second-hand vulcanizer, two flask, 10*s.* 101/2.

Bell's dental stoppers, Maw's illustrations fig. 19, page 151, never used, 7*s.* 6*d.*, cost 12*s.* 6*d.* Cockerill, 54 High Street, Stroud, Glos.

Six pairs dental forceps and elevator with case, in good condition; what offers? Knowles, Dentist, 3 Hinckley Road, Leicester.

Drugs and Chemicals.

Hop resin, about half a ton (a powerfully soothing tonic); offers wanted for the whole or part. Hay, Chemist, Hull.

Formulæ.

Reliable recipes, 6*d.* each; full set of 130 neatly copied in book, 7*s.* 6*d.*; send for list. "Chemist," Edwards, Wye, Kent.

Profit extraordinary.—Glycerine and cucumber, no better preparation made; wherever introduced sale enormous, costing only 10*d.* a gallon; recipe 2*s.* 6*d.* Adams, 1 Westow Hill, Norwood.

Shop Fittings.

Drawers.—One nest of 26 mahogany-fronted drawers, with gold labels, price 35*s*; measures about 2 ft. 6 in. square. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Bent-glass counter-case as Maw's A18, good as new, 6 feet long, price 5*l.* 10*s.*; also nests of drawers, dispensing-screen, bottles and fittings for chemist's; great bargains. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Second hand shop-fittings, show-cases, shop-rounds, specie jars, carboys, pill-machines, utensils, and every necessary for chemists commencing, or fitting up branch shops, at half the usual prices; state requirements or call. Natali & Co., 184 Aldersgate Street, London, nearly opposite Maw's. Established 1863.

Fittings of chemist's shop, bottles, carboys, &c.; good condition and cheap. Townsend, Chemist, Long Sutton.

Counter-cases, bent plate glass, as Maw's A18, 6 ft. long, 5*l.* 5*s.*; 6 ft. 10 in. long, 12 in. high, on glass, 6*l.* 5*s.*; 5 ft. ditto ditto, 5*l.*; plate-glass cases as Maw's A16, 4 ft. long, 75*s.*; 2 ft. 5 in., 45*s.*; 4 ft. 8 in., 95*s.*; 4 ft. 1 in. long, 70*s.*; 4 ft. 6 in., 80*s.*; 2 ft. 45*s.*, several others at similar low prices; flat plate-glass counter-case with upright case adjoining at back, 4 ft. 8 in. long, 85*s.*, a bargain, with two shelves at back for dispensing bottles; desks and cases from 45*s.* each, plate glass; toothbrush-cases, bent plate-glass front, at 30*s.* each; flat counter-cases, as fig. A2, 5 ft. long and 2 ft. wide, 50*s.*; 4 ft. 6 in. long and 2 ft. 3 in. wide, 50*s.*; flat plate-glass case, with sloping and flat shelf at back and money-table in centre, 9 ft. long, 6*l.* 10*s.*; 3 bent plate counter cases, each 3 ft. 1 in. long, air-tight, 50*s.* each. Elkanah Natali (established 20 years), 207 Old Street, Shoreditch End, London.

For sale.—11 ft. run of mahogany-fronted drawers, glass knobs, and gold labels, with cupboard at end made of dummy drawers, also labelled and knobbed, making entire length 16 ft., with lockers under, cover-boards, shelving, uprights and cornice complete for £10 10*s.* the lot; good second-hand 16-ft. mahogany counter cheap; several others from 4 ft. to 16 ft.; plate-glass-fronted counters any length, at low prices; dispensing-screen, as A54, 4 ft. and 5 ft. long, as A55, 6 ft., 7 ft. 6 in., 8 ft. cheap; dispensing-screen, with plate-glass centres and cases at each side, with table on top, "Dispensing Department," from 5 ft. to 8 ft.; wall-case, 4 ft. long, 6 ft. long, and 8 ft. long, cheap; wall-case, as A86, with plate-glass cupboards under, 9 ft. high, 3 ft. wide, 5*l.* 10*s.*; 3 ft. ditto, with mahogany cupboard under, 4*l.* 15*s.*; pink ointment-jars, specie-jars, pill-machines, dispensing-scales, mortars, &c.; all at low prices, at Elkanah Natali's, 207 Old Street, Shoreditch End, near County Court, London, E.C.

Miscellaneous.

Bradbury's dip, in good condition. 98/16.

Porcelain letters, cheap, all sizes, samples 2 stamps. 100/14.

Photographic apparatus, whole, half, quarter plate, together or separate, bargain. Marston, Dulwich.

4-gallon carboy, 7*s.*; handsome mahogany soda-water stand, with marble top, 46*s.* Carveth, Chemist, Plymouth.

Poppy heads, 5*s.* 100; bag 6*d.*; sample 3*d.*; small for crushing, 1*d.* lb.; bags 6*d.* Connor, Chemist, Doncaster.

400 gross willow boxes, 3 drachm, cut down in 2 cases; price 5½*d.* per gross to clear. S., 25 Mint Street, Lincoln.

Double tricycle (convertible), Coventry Co.'s Sociable, good condition; what offers? Christopherson, Swaffham.

Two gross quart syphons, nearly new, 24 cases, Barnett & Foster's syphon filler; what offers? Christopherson, Swaffham.

2 Goodall's patent grinding-machines, 13-inch mortars, to fix on counter, equal to new, cash 7*l.* 10*s.* each. E. Hough, Osmaston, Derby.

Ancient oak chest, large size, carved front, 5*l.* 5*s.*, or useful exchange as tricycle. "Housekeeper," Midland Buildings, Birmingham.

Dozen tooth-brushes, 4*s.* 6*d.*, cost 6*s.* 9*d.*; 6 100's choice cigars, 8*s.* 9*d.*, cost 11*s.* 9*d.*; 5 50's, 6*s.* 3*d.*, cost 8*s.*; German sash-tools, cheap. Slater, Beeston Hill, Leeds.

Pindar's 3, 4 and 5 grain pill-machine (2 sets of rollers), quite new, and new piping, press cost 13*l.*; complete, price 10*l.* 10*s.* "Alpha," 33 High Street, Peckham, S.E.

Job lots of mineral water and other bottles; 100 gross split lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 85/61.

Lancaster's "Merveilleux" camera, ¼ plate, with tripod, and "Demon" detective camera; both good as new; first postal order 10*s.* obtains the two. Bates, Brooks's Bar, Manchester.

Black teats, 5 gross fine rubber, 4/6 and 6/6 per gross; few left at 5/6; seamless, 5/9; 1 cwt. senna, good, 6*d.*; 28-lb. lots, 5*d.* per lb.; Bondault's pepsine, 1 oz., 2*s.*; 7*s.* Fellow's syrup, 3/6. Butterworth, Pharmacist, Bradford.

Glass bottles, job lines.—About 50 gross 3-oz pale green bottles for corks, suitable for pomade, vaseline, or furniture cream, 4*s.* per gross; 3 gross ¼-pint (repnted) green glass syrups, 7*s.*; 2 gross pint ditto, 15*s.*; 3 gross 1-pint white glass syrups, 20*s.*; 3 gross 2-oz. white globe-necked panels, 7*s.* Hearn, Bottle Works, 381 Kingsland Road, London.

Counter, as Maw's Fig. 61A, 6 by 2 ft.; desk and case, as Maw's Fig. A 32, or separately; 1889 English poppy-heads, to clear, any quantity, 4*s.* 1,000; fine Turkey sponge, grand little bits, most would sell for 6*d.*, 1*s.* per dozen; A. Davis's large penny packets brass-powder, 5*s.* per gross. Elliott, Chemist, Bedford.

WANTED.

Shop fixtures, bottles, in or near Manchester. 100/32.

Swan-neck carboys. Number, size, and price to Haynes, Chemist, Boscombe.

Drawers, bottles, stock, utensils, &c. Phillips, Upper Street, N.

Good specimens of rare British plants, cheap. Blade, Poulton le-Fylde.

Wall-case, about 5 ft. long, 6 ft. high; good condition. Jeacock, South Lowestoft.

Gallæ cæruleæ opt., acid salicylic pure powder, saleable patent medicines, &c., in exchange for Howard's quinine sulph. 96/7.

Year-Book Pharmacy 1870, also Index volume, clean and in good condition. Hopkin & Williams, London.

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NEW YORK and LONDON,

MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

MEDICINAL AND SURGICAL PLASTERS IN RUBBER COMBINATION

(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

MUSTARD PLASTERS.

We are now preparing Mustard Plasters after an entirely New Process.

Mustard Plasters have always given some trouble to both Physician and Pharmacist, by reason of decomposition from age, thus becoming inert. After years of careful manipulation we have been able to overcome this difficulty, and the Mustard Plasters prepared by us are guaranteed in every way.

ON APPLICATION WE WILL MAIL TO ANY CHEMIST'S ADDRESS A SAMPLE OF OUR

NEW PROCESS MUSTARD PLASTER,

A comparison of which with any other brand will show them to be much superior.

THEY WILL KEEP BETTER.

THEY WILL GIVE BETTER SATISFACTION TO YOUR CUSTOMERS.

THEY ARE STRONGER THAN ANY OTHER MAKE.

IMPROVED

BELLADONNA PLASTERS

(WITH BORACIC ACID).

INCREASED ACTION.

We have succeeded in greatly increasing the therapeutic value of Belladonna Plasters.

FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

SECOND.—By employing a more reliable extract of the drug than is commonly used.

THIRD.—By the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

Samples to any Physician's or Chemist's address on application.

ABSORBENT COTTON IN EVEN SHEETS

Rolled with Tissue Paper between them to prevent felting.

Cotton in this form is as easily applicable as an ordinary cloth bandage.
Its advantages can be seen at a glance.
Supplied in all sized Packets from 1 oz. to 1 pound.

Our goods can be obtained from all the leading Wholesale Houses in Great Britain and Ireland, or from us direct.

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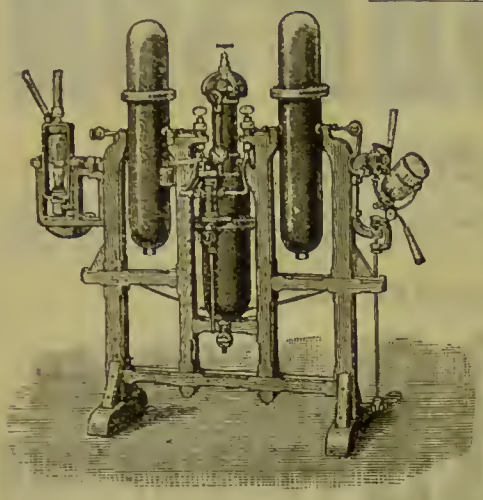
When ordering through the Wholesale Houses care should be taken to specify the goods of JOHNSON & JOHNSON'S Manufacture.

A. LOZÉ & CO., LD., 281 WEST DERBY ROAD LIVERPOOL.



INDISPENSABLE TO CHEMISTS.

THE ONLY PRACTICAL SODA WATER MACHINE.

Self-working by Chemical Action. No Skilled Labour.

NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.

Produces the Purest Aërated Water made.

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

COUNTY LABORATORY, 30 BROWNLOW STREET, LIVERPOOL, October, 18 9.

I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way. J. CAMPBELL BROWN, D.Sc.

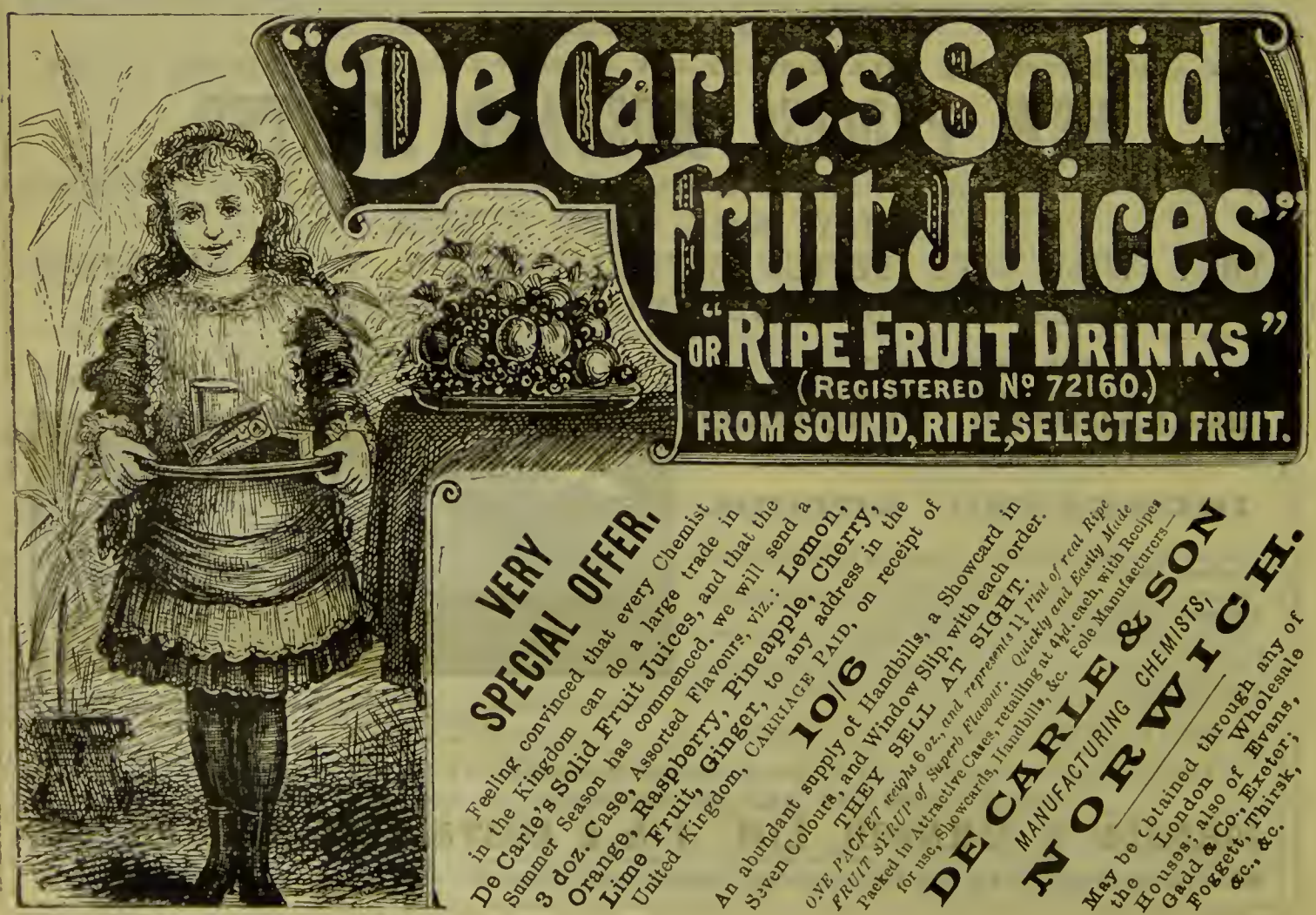
CHEMICAL LABORATORY, 20 ALBERT GATE, MANCHESTER, 21st August, 1889.

GENTLEMEN,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescot Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda: the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours, C. ESTCOURT, F.I.C., F.I.

Messrs. A. LOZÉ, & CO., LIMITED. DITTON, 10th April, 1890.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly, ROBT. J. GOW, F.C.S.



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The Largest Syphon Fillers in the United Kingdom.

SODA. Brilliant, Pungent, and Sparkling.

POTASH. Prepared according to the British Pharmacopœia.

SELTZER. Pure and Delicious Table Water.

LITHIA of guaranteed strength.

LEMONADE. Pure fruity flavour of ripe Lemons.

PURITY. Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

LOWEST PRICES for Water, both in Syphons and Bottles. Write for Price List.

PROMPT DELIVERY by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."
JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.
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SPARKLING TABLE WATERS,
UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
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EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
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"On the whole, I have no hesitation in stating that your Aërated Waters are of the highest standard of purity which is practically attainable."
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"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but *Citric Acid*.

"I took a sample of the water used in your manufactory, in the preparation of the Aërated Waters, and found it, as was the case with the completed compounds entirely *free* from lead, copper, *or any injurious* matter whatever."
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FOR THE EFFECTIVE TREATMENT OF

Disorders of the Organs of Respiration and Digestion,
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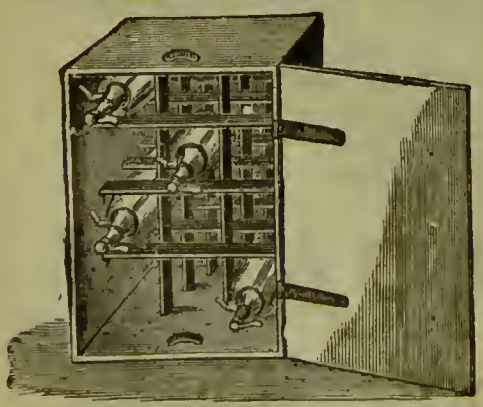

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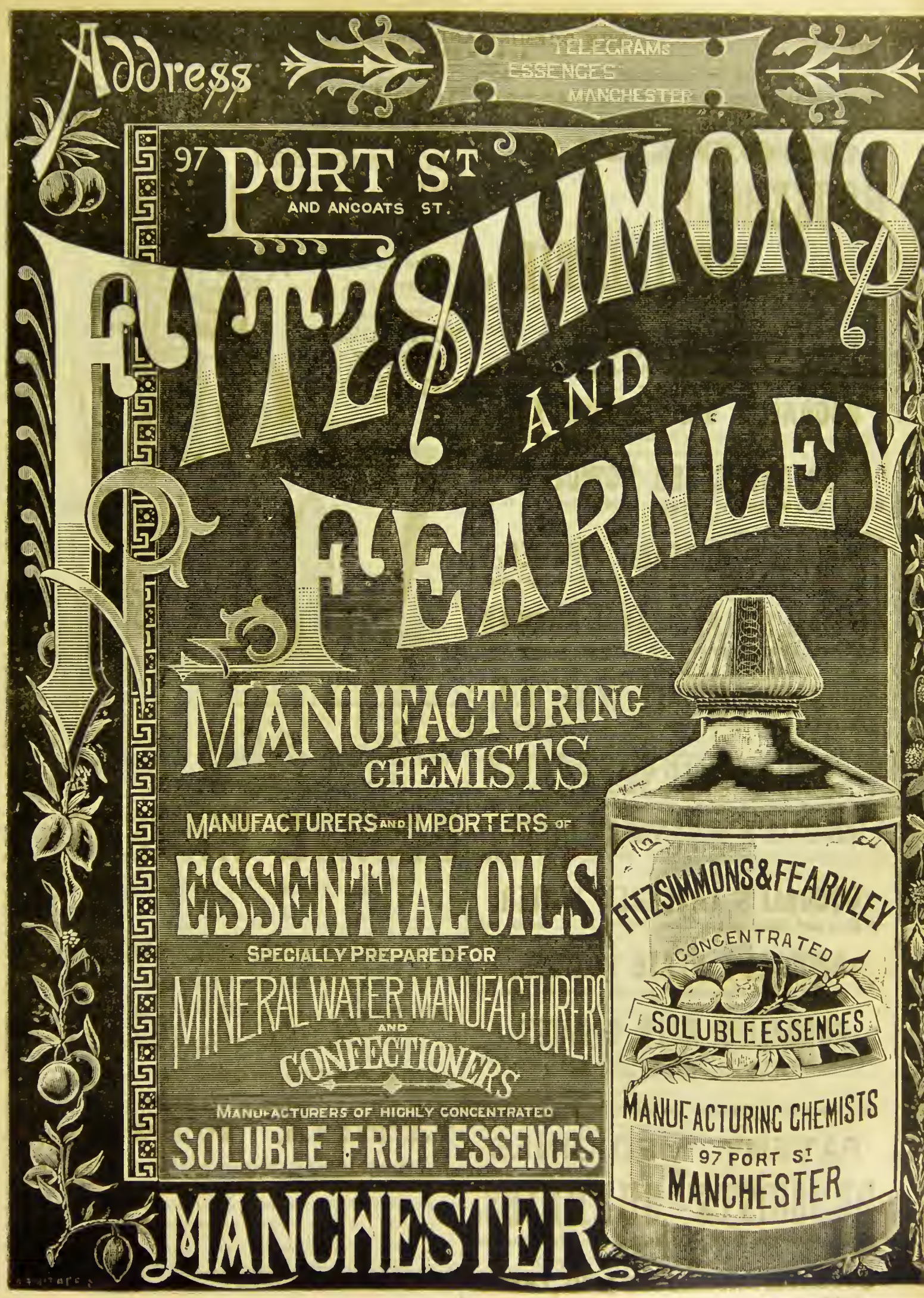
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Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each.

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The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

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One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. 2s. and 5s. Tins.

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Delicious Custards without Eggs. In Boxes, 2d. 6d., and 1s. each.

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Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

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Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

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Makes the Best Ginger-Beer. Packets, 3d. nd 6d.

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For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles.

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A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

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For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and 2s

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Make a Delicious and Nutritious Jelly. In ½-pint, 1-pint, and Quart boxes, 3d., 6d., and 1s. each.

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Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

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SOLE MAKERS OF THE

HAYES-MACDONELL STEAM BOTTLER.

Syrups, Fills, and Corks 60 to 70 dozen per hour.

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THE PUREST IN ENGLAND.

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS, LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—the recognised Specific for Gout.

THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in Pints and Quarts for Table Use.

Prices and Pamphlet on application. Agents appointed.

Messrs. INGRAM & ROYLE, 52 Farringdon Street, Wholesale Agents for the sale of our Waters.

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"NIAGARA WORKS,"

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Manufacturers of every Appliance for the

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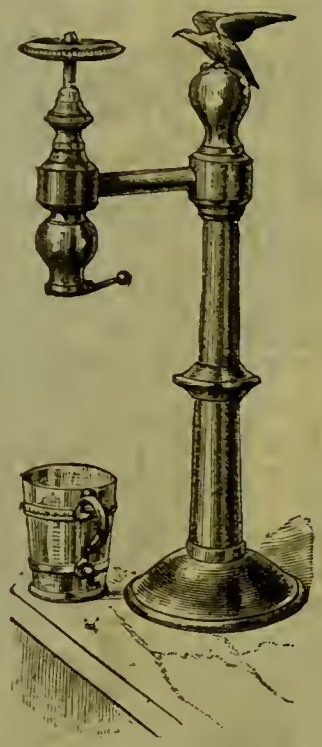

(The cylinder containing water, and the vessel containing the gas, are placed under the counter, and connected by piping to the Fountain on the Counter.)

LIQUEFIED (SO-CALLED NATURAL) CARBONIC ACID GAS

FOR USE WITH

COUNTER FOUNTAINS or SODA WATER MACHINES, FOR FILLING BOTTLES & SYPHONS.

With the **COUNTER FOUNTAIN** as shown, we draw direct into the Glass Tumbler, thus avoiding the loss of time occupied in first filling a bottle, and then emptying into the Tumbler, and also the loss of gas in the double operation.

The Gas is supplied in a steel vessel, at a cost of 10*s*., and a charge is made for the vessel, which is allowed for in full on return.

There is sufficient Carbonic Acid Gas for supplying 3,000 draughts of Soda Water.

SPECIAL MACHINERY AND BOTTLING APPLIANCES

For the manufacture of Mineral Waters as a Business (using the Liquefied Gas) are manufactured by us.

All information, with Catalogue, can be had upon application to above.

The System is on view, and all information given, at the

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BUY THE "LONDON MADE" SYPHON

AND SUPPORT BRITISH INDUSTRY.

It is the Cheapest, Strongest, Handsomest, and Best in the World.

PRICE 1/6 EACH.

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NICKEL PLATING FROM 1½d. EACH. SILVER PLATING FROM 3½d. EACH.

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	Dovetailed, Planed, and Unvarnished.	Dovetailed, Planed, and Varnished, two coats, *best finish.*
To hold ½ dozen, with lids	1/11	2/3
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To hold 1 dozen, with lids	2/6	2/9
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Besides GOLD & SILVER Medals, these Essences have obtained the HIGHEST TESTIMONIALS from all the Medical Journals & from the Principal Trade Journals in this & other Countries.

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Concentrated Fruit Essences—Soluble

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AND COMPARE WITH OTHER MAKERS.

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READ the following:—

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"We beg to say that we have used your "Syphons for many years, and are very well "pleased with them. We have tried other makers "but always found yours superior. We think your "Syphons the best of any we have seen.

"We are, yours truly, H. C. BAILDON & SON."

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"We cannot, we think, do better than tell you that of the Syphons "supplied us by you, and used by us during three successive seasons, we have not "had one out of order—if we except two with broken tubes; and only one burst, "and that on first time of filling. The Plating is, we consider, of special excellence "and wears well. We shall not need to look farther whilst you continue to supply us with what "we consider the best value in the market.—Yours truly, J. M. DOWDEN & CO."

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RED AND WHITE ROSES, The most popular Cachou in the Trade. Size and Shape **FRAGRANT "BOUQUET" CACHOUS**

HELIOTROPE VIOLET ORANGE BLOSSOM PRIMROSE

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.

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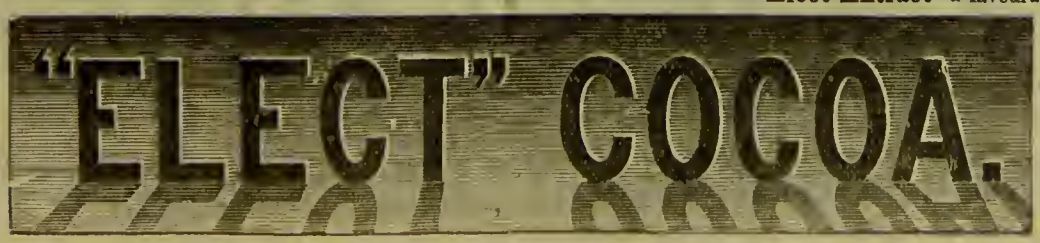

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The Best in the Market.

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Makes a Splendid Botanic Beer.

EXTRACT

WILL KEEP GOOD IN ANY CLIMATE.

3/6 per Dozen. **39/-** per Gross.

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PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

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MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS,** which were awarded as follows:—

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WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

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The following paragraph by Professor Dr. FURBRINGER, *Head Physician of the Staedtisches Allgemeinen Krankenhaus im Friedrichshain, Berlin, appears in the printed report from the Directorate of the said Hospital:—*

"Denaeyer's Peptono has at last been adopted as the new means of nutrition, after trials, which were made on a large scale with a quantity presented to this hospital, had proved the undeniable advantages of this Peptone over all other peptone preparations in use. Among these advantages, special mention should be made of the pleasant flavour—enjoyed by nearly all patients—and of its form, which is a beautiful clear, amber-yellow sterilised liquid, requiring no preparation before being used."

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LIQUID STERILISED PEPTONE OF MEAT.

Highly sterilised and concentrated, the only rational one, free from microbes, acknowledged the most efficacious means of restoring STRENGTH, DIGESTION, and APPETITE.

It suits the most fastidious stomach, and is pleasant to the taste.

LIQUID STERILISED PEPTONATE OF IRON.

The most active and assimilable of all ferruginous preparations. Specially recommended in all cases where the stomach cannot bear iron in the ordinary forms.

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PEPTONISED MILK

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These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage, the assimilation of which requires no digestive effort.

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MEAT JUICE OBTAINED BY A COLD PROCESS.

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Undoubtedly the most natural preventative and curative agent in all cases of Indigestion, Disorders of the Liver, Fevers, Cholera, Dysentery, &c.

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COMPARE, AND THEN DECIDE.

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LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

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From the results of my Analyses of various **Beef Wines** I have had occasion to examine, none have **equalled** as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to **Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.**

WILLIAM ELBORNE, F.C.S., F.L.S.,
Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

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One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.

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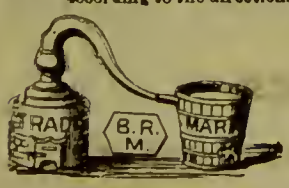
" Carui " 4/ "	" Flor. Sambuci " 8/6 "	" " Virid. " 4/ "	



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¼-lb. Jars	" 7/3	" 21/9		½-oz. Jars	" 8/8	" 3/3	

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In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction Medicated Lozenges of Pharmacopœia Strength.

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Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

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AND

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Natal Drug Co. (Limited)
Noris, Zahn and Co.
Peake, Allen and Co.
Prosser, Taylor and Co.
Rich, E. C., Co.
Roberts (Paris, &c.)
Rocke, Tompsitt and Co. (Melbourne)
Sharland and Co.
Soul, W. H., and Co.

APPARATUS

Clarke, S. (Food Warmer and Bed Tray)
Egrot
French Nickel Manufacturing Co.
Orme, J., & Co. (Scientific)
Parken, Son and Rayment
Sinclair, Tweedie and Co. (Gas Jet)
Tebbutt, F.
Thompson, C. (Gas-jet)
Wedgwood & Sons (Mortars)

BANDAGES

Bailey, W. H., and Son
Robinson and Sons
Seabury and Johnson

BATH GLOVES

Solport Bros.

BAKING POWDER

Goodall, Backhouse & Co.

BEESWAX

Bowdlear, W. H., and Co.
Luneberger Wax Bleaching Works

BICARB. SODA

Brunner, Mond and Co., Lim.
Howards and Sons
May and Baker

BISMUTH. PREP.

Hearon, Squire and Francis
Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons

BLOOD MIXTURE

Lincoln and Midland Counties Drug Co.

BOOKS

Churchill, J. and A.
Griffin, C., and Co.
Hargreaves, Dr.
Lewis, H. K.
Muter, Dr.
Squire and Sons

BRUSHES

Dukes and Co.
Fordham, W. E., and Sons, Lim.
Kent, G. B., and Sons
Moseley, David and Sons

BOTTLE CAPPING

Beach, J., and Sons

BOXES

Austin and Co. (Cardboard)
Ayrton & Saunders
Chalmers, W. B.
Owen, J., Jr
Parmenter, I. W. & Co. Lim.
Robinson and Sons

BOTTLES

Aire and Calder Bottle Co. (Ld.)
Barnett and Foster
Barrett, R. H.
Bratby and Hinchliffe (Ld.)
Breffit's (Lim.)
Gilberteon, H., and Sons
Hearn, E. A., and Co.
Isaacs and Co.
Kilner Bros.
Poths, H., and Co.
Sanders, H. G., and Son
Shirley, A. W.
Thompson, Walters, Hole and Co. (Lim.)
Toogood, W.
Youldon, E.

BUTTER COLR, &c.

Clements, S. G., and Co.
Johnsen and Jörgensen
Oldfield, Pattinson and Co.
Hearon, Squire, and Francis
Tomlinson & Hayward

CAMPHOR

Fuerst Bros.
Howards and Sons
Keene and Ashwell (Homœopathic)
May and Baker

CASTOR OIL

Allen and Hanburys
Fuerst Bros.

CAPSULES (METALLIC)

Betts and Co.
Brooks, Peel and Co.
Melin, C. (Machine)
Sanders, H. G., and Son

CAPSULES

Denoual, J. (Medicinal)
Duncan, Flockhart and Co.
Evans, Sons and Co.
Fournier, Bon and Co.
Hooper, E., and Co.

CASCARA SAGRADA

Duncan, Flockhart and Co.
Evans, Sons and Co.
Ferris and Co.
Moss, J., and Co.
Squire and Sons

CATALOGUE

May, Roberts and Co.
Sanger and Son

CEMENT

Kay Bros. (Lim.)

CHALK PREPN.

Dunn and Co.
Levermore, Aug., and Co.
White, A., and Sons

CHEST PROTCTRS

Solport Bros.
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

CHLORIDE OF GOLD

Rowland, L.

CHLRIDE OF LIME
Government Sanitary Co.
National Chemical Co.

CHEMICALS
Andreae, Oscar and Co.
Boehringer, C. F., and Sohne
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall. Backhouse and Co.
Greeff, R. W., and Co.
Hill. A. S., and Son
Hodgkinsone, Treacher and Clarke
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Ang., and Co.
Lofthouse and Saltmer
Lorenz, H.
May and Baker
Morris and Callard
Moss and Co.
Pronk, Davis and Co.
Poulenc, Frères
Stern, G.and G. (Pumiline)
Smith, T. and H., and Co.
Typke and King
White, A., ann Sons
Zimmermann. A. and M.

CHLORODYNE
Davenport (Browne's)
Towle, A. P., and Son

CHLOROFORM, &c.
Duncan, Flockhart and Co.
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID
Hassall & Co. (Phospho)

COCAINE-HYDRO.
Boehringer, C. F., and Sohne
Howards and Sons

COCA WINE
Armbrecht, Nelson and Co.
French Hygienic Soc.

COCOA & CHOCLTE
Cadbury Bros
Christy, T., and Co.
Fry and Sons
Rowntree and Co.
Savory & Moore (Peptonised)
Van Houten's Cocoa

COD-LIVER OIL
Allen and Hanburys
Burroughs, Wellcome and Co
Hill, A. S., and Son
Lofthouse and Saltmer
Oppenheimer Bros. and Co.
Smith, T. J.
Southall Bros. and Barclay
Woolley, Sons and Co.

COFFEE
Symington and Co. (Coffee Essence)

COLPSIBLE TUBES
Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., & Son

COMP. MEDICINES
allen and Hanburys
Blyton, Astley and Co.
Burroughs, Wellcome and Co
Fuerst Bros.
Hooper, B., and Co.
Leo and Co.
Wyleys and Co.

CONFECTIONERY
Blyton, Astley and Co.
Gibson, R., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONCENT. LIQS.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson

CORN CURES
Seabury & Johnson (Plasters)
Thompson, M. F.
Young, H.

COTTON WOOL
Haynes, G., & Co. (Absorbent)
Robinson and Sons (Absrbnt.)
Sanger, J., and Sons
Seabury and Johnson

CRSHD LINSEED
Mumford, G. S.

DENTIFRICES
Fentiman & Co.
Jewsbury and Brown
Lakeman, J. J.
Newbery and Sons
Reeb, H.
Sutton, C., and Co.
Thompson and Capper
Warrick Bros.
Woods, W. (Areca Nut)
Wright, C., and Co.

DISINFECTANTS
Government Sanitary Co.
Hamilton and Co.
Knight and Co.
National Chemical Co.
Seabury and Johnson
Sanitas Co.

DISINTEGRATORS
Carter, J. H.

DRUGGISTS' SUN.
Ayrton and Saunders
Bailey, M., and Co.
Barclay and Sons (Limited)
Davy, Humphrey, & Co.
Evans, Lescher and Webb
Evans, Sons, and Co. (Savars)
Gilbertson, H., and Sons
Hill. A. S., and Son
Hookin, Wilson and Co
Idris and Co.
Kay Bros., Lim.
Lynch and Co.
Marriot, E., and Co.
May, Roberts and Co.
Quelch, H. C.
Rankin, W., and Sons
Sanger and Sons
Schutze and Co.
Still, W. M., and Co.
Thompson, Walters, Hole and Co. (Lim.)
Toogood. W.
Wood, Vincent

DOG MEDICINES
Spratts (Patent)

EAU DE COLOGNE
Farina, J. M.
Martin, Maria (Nun)

ELASTIC HOSIERY
Wood, V.

ELECTRIC APPAR.
Darton, F., and Co.
Gent and Co.
Orme and Co.

EMBROCATION
Elliman, Sons and Co.

ENAMEL
Fordham, W. B., and Sons

ENEMAS
Ingram and Son
Sanger and Son

ENGRAVERS
Barker, W., and Son
Corsan, J. R. (Glass)

ESSENCES
Beckett, W.
Bratby and Hinchliffe (Ld.)
Burgoyne, Burbidges and Co.
Bush, W. J., and Co.
Cummock, J
De Carle and Son (Fruit)
Fitzsimmons and Fearnley
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Woolley, Sons and Co

ESSENTIAL OILS
Bush, W., Son and Co.
Cocking & Co. (Japan Peppermint)
Cummock, J.
Evans, Sons and Co.
Fitzsimmons and Fearnley
Hodgkinsons, Treacher and Clarke
May and Baker
Stevenson and Howell
Symes and Co.
Tombarel Frères
Treatt, R. C.
Warrick Brothers
Wright, Layman and Umney
Vogt, G., and Co.

ETHER
Clandon, G.
Duncan, Flockhart and Co.
Howards and Son
May and Baker
Robbins, J., and Co.
White, A., ann Sons
Woolley, Sons and Co.
Wright, Layman and Umney

EUCALYPTUS
Downie B. I. P. Co.
Knight and Co. (Tablets)

EXTRACTS, FLUID
Allen and Hanburys
Barber, G., and Co
Burgoyne, Burbidges and Co.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., & Co.
Moss and Co.
Potter and Clarke
Wright, Layman and Umney

EXTRACT, MEAT
Aylwin, W. E.
Australian Meat Co.
Bovril (Limited)
Brand and Co.
Denacyer's Peptone and Extract of Meat Co (Lim.)
Liebig Co.
Liquor Carnis Co. (Lim.)

FEEDING BOTTLE
Breffits, E, and Co., Lim.
Evans, Sons and Co.
Hearn, E. A., and Co.
Hookin, Wilson and Co.
Kilner Bros.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W.

FILTERING
Doulton and Co.
Fordham, W. B., & Sons, Lim
Silicated Carbon Filter Co.

FLY PAPERS
Ford, Shapland and Co.
Taubridge and Wright
Wileon, S.

FOOD (Infants' & Invalids')
Allen and Hanbury
Brand and Co.
Bragg, J. L. (Charcoal Biscuits)
Goodall, Backhouse and Co.
Hearon, Squire and Francis
Liebig Co.
Liquor Carnis Co. (Lim.)
Mottershead & Co. (Conger's Food)
Nestle, H.
Savory and Moore

FORMULA
Brooks, T.

GELATINE
Coignet and Co.

GINGER ALE
Hay, W. (Essence)
Mills, R. M., and Co.

GLUE
Coignet and Co.
Fordham, W. B., and Sons

GLYCERINE
Fink and Co.
Fuerst Bros.
Price's Candle Co.

GRANULAR PREP.
Curtis and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUM
Coignet and Co.
Fink & Co. (Arabic, &c.)
Deutschmann & Woroneicki
Hyde, Nash and Co.
Knight and Co.
Levermore Ang., and Co.
Pronk, Davis and Co.

GUTTAPERCHA
Duncan, Flockhart and Co.

HAIR PREP.
Chesebrough Mnfg. Co.
Edwards and Co.
Hopgood and Co.
Truefitt, H. P. (Limited)

HERB BEER EXTS
Newball and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

HERBALISTS
Butler, McCulloch and Co.
Newball and Mason
Potter and Clarke

HOMŒOPATHIC
Keene and Ashwell
Leath and Ross
Thompson and Capper
Wateon and Wates

HOP ALE ESSENCE
Hay, W.

HOSPITALS
Bolingbroke House
London Homœopathic

HYPOPHOSPHITES
Duncan, Flockhart and Co.
Dunn and Co.
Fellows
Fletcher, Fletcher and Co.
Symee and Co.
Typke and King

INHALERS
Anderson and Adams
Evans Sons and Co.
Godfrey and Cooke
Hookin, Wilson and Co.
Schutze, F., and Co.
Still, W. M., and Co.
Toogood, W.

INSECTICIDES
Corry, Soper, Fowler & Co. (Lim.)
Sanford and Co.
Shorey, J. F.
Steiner and Co.
Thompson, Walters, Hole and Co. (Lim.)

INK [See MARKING]
Bewley and Draper
Duncan, Flockhart and Co.

KETCHUP
Tyrer, P.

LARD
Ewen, J., and Sons

LEECHES
Fitch and Nottingham

LINT
Liverpool Lint Co.
Newsome, C.
Robinson and Sons
Seabury and Johnson

LIME JUICE
Evans, Sons and Co.
Idris and Co.
Riddle, A., and Co.

LOZENGES
Allen and Hanburys
Blyton, Astley and Co.
Gibson, R., and Sons (Manfrs.)
Hill and Son
Kerfoot, T.
Pascall, J.
Raimes and Co.
Warrick Bros.

MACHINERY
Beyer Freres.
Burroughs, Wellcome and Co.
Carter, J. H.
Goodall, E. F.
Holroyd, J., and Co. (Lim.)
McFerran, J. A.
Mells, C. (Capsuling)
Palau and Co.
Werner and Pfleiderer

MAGNESIA
Andreae, Oscar, and Co.
Bush, W., Son and Co.
Dinneford
Henry, T. and W. (Calcined)
Hill and Sons, A. S.
Kerfoot, T. (Citrate)
Murray, Sir James. and Son
Quelch, H. C.
Southwell, C., and Co. (Citrate)

MALT EXTRCT, &c.
Burroughs, Wellcome and Co. (Kepler's)
Hearon, Squire and Francis
Oppenheimer Bros. and Co.

MARKING INKS
Barber, G., and Co. (Crimson)
Hicklesson, J.

MEDICINE CHSTS
Bentley, E., and Sons
Day, Son and Hewitt (Veterinary)
Day and Sons (Veterinary)

MENTHOL
A1 Menthol Depot, A. W. Shirley, Proprietor
Christy, T., and Co.
Cooking and Co.
Hookin, Wilson and Co.
Tyrer, P.

MERCURIALS
Fuerst Brothers
Howards and Sons
May and Baker

METHYLATED SPIRITS
Burrough, J.
Harvey, J. & W., and Co.
Jones and Co.
Phillips, G., and Co.

METHYLENE
Robbins, J., and Co.

MICROSCOPES
Darton, F., and Co.
Perken, Son and Rayment

MILK
Nestle, H. (Condensed)

MIXING MACHINERY
Carter, J. H.
Gardner, W.
Werner and Pfleiderer

MORPHIA
Macfarlan, J. F., and Co.
Smith, T. and H.

MUSK
Chiris, Antoine

OILS, PAINTS, &c.
Anglo-American Oil Co. (Lim.)
Colthurst and Harding
Fox, W., and Sons
Pronk, Davis and Co.

OINTMENT BASES
Burroughs, Wellcome and Co.
Chesebrough (Vaseline)
Grindley & Co. (Petroleum Jelly)

OPHTHALMIC
Pomies, Dr.
"Opticura"

OPTICIANS
Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.

OTTO OF ROSE
Fuerst Bros.
Treatt, R. C.

PAPAIN FINXLES
Kuhn, B.

PARALDEHYDE
Zimmermann, A. and M.

PATENT AGENTS
Horn and Son

PEPPERMINT OIL
Cocking and Co.

PEPSINE, &c.
Burroughs, Wellcome and Co.
Chassaing and Co.
Fletcher, Fletcher & Stevenson
Newbery F. & Sons (Inglnvin)
Warner and Co. (Inglnvin)

PEROX. OF HYDR
Dunn and Co.
Robbins and Co.

PETROLEUM
Anglo-American Oil Co. (Lim.)
Dee Oil Co. (Limited) (Jelly)
Grindley and Co. (Jelly)
Hamilton and Co. (Jelly)

PATENT MEDCNS
Alofas Co.
Armbrecht, Nelson and Co.
Atkinson and Barber (Infant Preserv)
Barclay and Sons (Limited)
Beecham, T. (Pills)
Braggi and Co.
Crouch, F. B. (Wafers)
Edwards and Son
Evans, Lescher and Webb
Fenning's (Powders)
Globe Chemical Co.
Goodall, Backhouse and Co.
Grosgurin, C.
Holloway (Pills and Oint.)
Hop Bitters Co. (Lim.)
Invigorine Manufacturing Co.
John's Liver Pills
Lalor (Phosphodyne, &c.)
Lamplough, H. (Lim.)
Lincoln (Clarke's Mix.)
May, Roberts and Co.
Newbery and Sons
Powell, A. E., and Co
Radam's Microbe Killer Co. (Lim.)
Richards, J. M
Roberts and Co. (Foreign)
Sequah (Limited)
Sutton, W., and Co.
Thompson, Walters, Hole and Co. (Lim.)
Vogeler, The C. A. Co.
Wilson, A. (Bunter's Nervine)
Wilson, J. (Anti-Stiff)

PERFUMERY, FANCY SOAPS
Blondeau and Co.
Burroughs, Wellcome and Co.
Chesebrough Manufctrng Co.
Chiswick Soap Co.
Cook, E., & Co.
Coward and Co.
Dee Oil Co. (Limited)
Deutschmann and Woroneicki
Durrant, Geo.
Ewen (Soaps)
Farina, J. M.
Giraud Fils
Greensill, T. S., and Son
Mann, C. A., ann Co.
Moulila Liquid Soap Co., Lim.
Newbery and Sons (Berdoes')
Osborne, Baner & Cheeseman
Pears' Soap
Price's Patent Candle Co.
Rosmarine Manufg. Co.
Rouse & Co.
Sainsbury, S. (Lav. Water)
Shirley, A. W
Taylor, J. N.
Thompson, Walters, Hole and Co. (Lim.)
Treatt, R. C.
Truefitt, H. P. (Limited)
Vogt, G., and Co.
Warrick Brothers
West, T. (Okell's Mona)
Woolley, Sons & Co. (Powder)

PHOTOGRAPHIC
Rotwright and Grey
Darton, F., and Co.
Howards and Son (Chemicals)
Marion and Co.
Orme, J., and Co.
Perken, Son and Rayment
White, Alfred, and Sons

PINE PRODUCTS
Burroughs, Wellcome and Co
Stern, G. and G.

PILL MACHINES
Niblett, G. W.
Palau, N., and Co.
Pindar, J. W.
Toogood, W. (Coater)

PORCELAIN GOODS
Toogood, (E.c. Pots, regist.)

PHARM. PREPS.
Allen and Hanburys
Barron, Squire and Co.
Billault
Brady and Martin
Burgoyne, Burbidges & Co.
Burroughs, Wellcome & Co.
Chanteaud, G.
Chassaing and Co.
Claudon, G.
Dee Oil Co. (Limited)
Deutschmann & Woroneicki
Duncan, Flockhart and Co.
Fellows
Ferris and Co.
Fletcher and Co.
Fournier, Bon and Cie
Frunean, E.
Giles Schacht & Co.
Greeff, R. W., and Co.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
Jeyes Sanitary Compounds Co
Keith & Co. (Conc. Tinctures)
Lorenz, H.
Lorimer and Co.
Martindale, W.
May and Baker
Morson, T., and Son
Rankin and Borland
Riegles and Co.
Roberts and Co.
Southall Bros. and Barclay
Sutton, W., and Co.
Symes and Co.
Trommsdorff, H.
Tucker, J., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Sons and Co.
Wyleys and Co.

PHOSPHORUS
Coignet and Co.

PILLS (Coated, &c.)
Anderston Apothecaries Hall
Beecham, Thomas
Eade's Gout Pills
Evans, Sons and Co.
Frere, L.
Holloway's
Hooper's
Hearon, Squire, and Francis
McKesson and Robbins
Newbery and Sons
Richards, J. M.
Warner, W. R. & Co. (Coated)
Wyleys and Co.

PODOPHYLLIN, &c.
Keith, B., and Co
Smith, T. and H., and Co.

PLASTERS
Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
St. Dalmas, A. De
Seabury and Johnson
Thompson, M. F
Young, H.

POLISHING
Bradley & Bourdas (Albatum)
Fordham, W. B., and Sons (Limited)
Oakey, John, and Sons

PRINTING
Bowers Bros.
Corsan, J. R. (Glass)
Cyclostyle Co.
Ford, Shapland and Co.
Silverlock, H.
Townsend, J.
Zuccato and Woolf.

PUMILINE
Stern, G. and G.

QUININE SALTS
Andreae, Oscar, and Co.
Boehringer, C. F., and Sohne
Howards and Sons
Kuhn, B.
Rivers, Hicks (Penny Quinine)
Zimmermann and Co.

RENNET
Clements, S. G., and Co.
Duncan, Flockhart and Co
Johnsen and Jörgensen
Oldfield, Pattinson and Co.

SACCHARIN
Allen and Hanburys
Burroughs, Wellcome and Co.

SALICYLIC ACID
Fnerst Bros. (Kolbe's)
Morson, T., and Son
Zimmerman, A. and M.

SALT
Stern, G. & G. (Pepsalla)
Thompson, Walters, Hole and Co., Lim. (Sea)
Tidman and Son (Sea)

SALICIN
Macfarlan and Co.
Smith, T. and H., and Co

SALOL
Kuhn, B.

SAUCES, PICKLES
Goodall, Backhouse and Co.
Tyrer, P.

SEALING WAX
Stewart, G., and Co.

SCHOOLS, &c.
City School of Chemistry and Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homœopathic and Medical School
Manchester College
South London School of Pharmacy, Lim.
The School of Pharmacy
Westminster College

SELTZOGENES
Bratby and Hinchliffe, (Ld.)
Durafort
Evans, Sons and Co.
Fevre, T.
Geraut, E. and Co.
Lynch and Co.
May, Roberts and Co
Thompson, Walters, Hole and Co. (Limited)

SHEEP DIP
Hamilton and Co.

SHOP FITTERS
Bowling and Govier
Bygrave, J. and W.
Evans, Sons and Co.
Hawke and Son
Howlett, S.
Natali, E. (Show Cases)
Poths, H., and Co.
Treble, G., and Co.
Yates, W. S.

SOAP
Ayrton and Saunders
Blondeau and Co. (Vinolia)
Chiswick Soap Co.
Cook, E., and Co.
Ewen, J., and Sons
Fordham, W. B., & Sons (Ld.)
Lucas and Co.
Pears' Soap
Stern, G. and G.

SPONGE
Cresswell Bros.
Marks, H., and Sons (Ld
Peterson, M., and Co.

SPECTACLES
Botwright and Grey
Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.

SPIRIT
Burrough, J. (Pure & Methyl.)
Harvey, J. and W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Phillips and Co.
Smith, Stephen and Co.

STAMPS (RUBBER)
Hicklsson, J.
Pollard, A. W.

STARCH
Critchley (Gloss)

STOPPERS
Austin and Co. (Sprinklers)
Barnett and Foster
Sanders, H. G., and Son

STOVES
Clark, S., and Co. (Lim.)

SUGAR
Gibson, R., and Sons

SURGICAL
Ayrton and Saunders
Bailey, W. H., and Son
Barclay and Sons (Limited)
Cocking, J. T.
De Luca, G. V.
Eschmann Bros. and Walsh
Haywood, J. H.
Ingram and Son
Liverpool Patent Lint Co.
Mestivier and Co.
Robinson and Sons
Schutze, F., and Co.
Schoenfeld Frères
Still, W. M., and Co.
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

SULFONAL
Burroughs, Wellcome and Co.
May and Baker

SYPHONS
Barnett and Foster
Bratby and Hinchliffe (Ld.)
Durafort
Favarger and Co.
Fevre, T.
Geraut, E., and Co.
Kilner Bros.

SYRINGES
De Luca, G. V.
Schoenfeld Frères

SYRUPS
Fletcher, Fletcher (Liquors)
Idris and Co.

TEA
French and Langdale
Gt. Tower St. Tea Co.
Santha Tea Co.
Walker and Dalrymple

THERMOMETERS
Bailey, W. H., and Son
Darton, F., and Co.
Perken Son and Rayment

TILL
Gledhill, G. H.
Stokes, G. R. & Co.

TOBACCO, CIGARS CIGARETTES
Lynch and Co.
Peacock, M. & R.
Taddy and Co.

TOILET
Evans, Sons and Co.
Fordham, W. B., and Sons (Lim.)
Fowler, E.
Hopgood and Co.
Layng, R. C.
Mumford, G. S.
Quelch, H. C.
Simon, J.
Truefitt, H. P. (Limited)
Woolley, Sons and Co.

TOOTH PASTE
Jewsbury and Brown
Sutton, C., and Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Areca)

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LONDON.] JUNE 14TH. [1890.

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Is an admirable stimulating tonic and food. Each fluid ounce contains the equivalent peptone value of two ounces of fresh beef, with four grains of iron citrate. This preparation is palatable, and is readily taken by children and invalids.

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This preparation has been tested by the most distinguished therapeutists of the day, and given precedence over all other preparations of *Hamamelis virginica.* It presents advantages over them from the fact that it contains the volatile active principles of Witch Hazel—a distillate of the fresh twigs. Hamamelis contains little of value which is not volatile. Not only is a distillate more potent than any other preparation of the drug, but its properties are distiuctly peculiar to itself, and of a value directly in proportion to its volatility.

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A NON-IRRITATING BASIS FOR OINTMENTS.

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"Lanoline" supplied to the Trade in 1-lb. and 7-lb. tins at 2*s.* 8*d.* per lb.; Anhydrous "Lanoline," at 3*s.* 4*d.* per lb.; "Lanoline" Ointment Base, 2*s.* 2*d.* per lb.; Anhydrous "Lanoline" Base, 2*s.* 10*d.* per lb.; "Lanoline" Cold Cream supplied in pots at 14*s.* per doz.; "Lanoline" Toilet Soap, 8*s.* per doz.; Toilet "Lanoline" in tubes, at 4*s.* 6*d.* and 9*s.* per doz.; Lano-Creolin (an ideal deodorant and true disinfectant) in tubes, at 9*s.* per doz.

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See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spiritus Ætheris Nitrosi.

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Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

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The Pharmaceutical Society of South Australia.
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GERMAN SILVER.—A number of illegal shillings are in circulation just now, emanating, it is said, from some German source. They are a very close imitation of the Jubilee shilling coin which has now come into general use, and their intrinsic value, as silver, is about equal to that of the legitimate shilling. But the silver value of either coin is only about 7½*d.*; the Government-produced shilling is taken to be the twentieth part of a sovereign, because it is made legal tender as such to a certain limited amount. But these German coins are not legal tender, and the banks are refusing them. The only way in which the illegal coins can be distinguished from the genuine ones is by the Queen's image, which on the former extends almost to the edge of the coin; on the English Mint coins, on the other hand, the bust is somewhat smaller, and there is a distinct space between the bottom of the bust and the rim of the shilling. The difference is readily perceived when the two coins are placed side by side.

THE subscription to THE CHEMIST AND DRUGGIST is 10*s.*, which includes the numbers for a whole year, a copy of THE CHEMISTS' AND DRUGGISTS' DIARY next published, and postage to any part of the world. Orders and cheques should be made payable to Edward Halse.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

POSTCARD COMPETITION.—JUNE.

THE PHARMACEUTICAL SOCIETY'S JUBILEE.

IN concluding their forty-ninth annual report, published in THE CHEMIST AND DRUGGIST, May 10, 1890, the Pharmaceutical Council remarked: "It is interesting to note that the Society has entered its fiftieth year, having been founded in March, 1841, and next year it will be a question as to the most fitting way for the Society to celebrate its jubilee." We shall be glad to see what suggestions for the celebration of this jubilee can be offered by our correspondents, and we therefore invite ideas to be sent to us on postcards during the month of June. We shall pay the usual guinea for the information which seems to us to be the brightest and best. Subscribers, their families, and employés are all eligible to enter this competition. Postcards only can be received, and on June 30 the competition will be closed.

CHEMIST AND DRUGGIST SERIES.

NEW AND IMPORTANT WORK FOR CHEMISTS.

"A MANUAL of Pharmaceutical Testing for the Man of Business and his Assistants; comprising simple instructions for the testing of the chemicals of the British Pharmacopœia, &c.; with such materials and appliances as are in common use at the dispensing-counter. By Barnard S. Proctor, F.I.C. Published at the Offices of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., and at Melbourne and Sydney. 1890."

We quote above the title-page of Mr. Proctor's new manual, which we have published at 2*s.* 6*d.*, or 2*s.* 9*d.* post free. This description of the work concisely explains its objects and scope. It will be found of great and frequent use in all pharmacies, both for practical and for educational purposes. It will be sold through wholesale houses, and we shall be glad to receive orders for it direct. It is uniform in binding and style with our other "Manuals," the "Art of Dispensing" and Alpe's "Handy Book of Medicine Stamp Duty."

"THE ART OF DISPENSING."

THIS popular work treats of all the manipulative details involved in compounding medical prescriptions, special attention being given to dispensing difficulties. It includes particulars regarding pill excipients and pill coating, the suppositories, emulsions of all kinds, mixtures, &c. There are distinct chapters on the dispensing of French, German, and homœopathic prescriptions, and select new remedies. The appendix comprises French, German, and Latin vocabularies and a concise table of doses of potent medicines. The book is got up in good style and is published at 3*s.* 6*d.*

"THE HANDY BOOK OF MEDICINE-STAMP DUTY."

THIS work has been written for us by Mr. E. N. Alpe, of the Solicitors' Department, Inland Revenue Office, Somerset House, who has had a wide experience in and intimate knowledge of the administration of the Acts which regulate the sale of proprietary medicines. The Handy Book is, consequently, of exceptional value to chemists and druggists, more especially in showing how medicines are made liable to stamp-duty by labelling, circulars, and the like. Reviewers have been unanimous in stating that the work is not only complete, but interesting and invaluable. It is as free as possible from legal phraseology, is readable, and is nicely got up. Price 2*s.* 6*d.*, or by post 2*s.* 9*d.* May be obtained through the wholesale houses in the same way as "The Art of Dispensing."

CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

QUALITATIVE ANALYSIS.

A MIXTURE of *three* salts of common occurrence will form the subject of the next exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday, June 18, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday morning, June 28. Each report should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

REPORTS.

The powder issued for analysis last month was a mixture of four parts of potassium alum and one of ammonium bromide. Its calculated composition was:—

Al	4·63
K	6·58
NH_4	3·67
SO_4	32·37
Br	16·33
H_2O	36·42
	100·00

It contained as impurities a trace of chlorine and a minute trace of iron.

There were fifty-two reports received this time, and thirty-three of them stated the composition of the mixture correctly. The greater number of the correct reports differed so slightly that there was some difficulty in placing them in order of merit. The next analysis will afford our correspondents a wider field for the exercise of their analytical skill, as the subject of it will be a mixture of three salts, instead of being limited to two salts, as the analyses have been for some time past.

The chief source of error in this exercise was the bromine, which, in some cases, was mistaken for iodine, and in some for chlorine. The colour of the silver nitrate precipitate was sometimes observed by artificial light, under which circumstance it was easy to suppose that it was white. Want of sufficient acquaintance with the character and properties of bromine lead to its being confounded with iodine and chlorine. Even the smell of bromine, which is so peculiar and characteristic, was not recognised by some of our correspondents. The remedy for errors which arise from such sources is study by experiment, in contradistinction to mere reading. The use of books is, of course, not to be neglected, but a knowledge of chemistry cannot be acquired from books alone. The proper function of a text-book in any branch of experimental science is to act as a guide to the student in the conduct of the experiments to which he must trust for the acquisition of real knowledge.

PRIZES.

The First Prize for the best analysis has been awarded to A. COUSINS, care of Mr. Carr, Chemist, Weston-super-Mare.

The Second Prize has been awarded to WILLIAM DAVIES, 19 West Blackhall Street, Greenock.

Marks Awarded for Analyses:

A. Cousins (1st prize)	98	F. R. H.	89
William Davies (2nd prize)	97	Ferrum	89
F. W. Towan	95	Semper Fidelis	89
Moyhitt	95	Beine	88
Danwer	95	Tresillian	88
W. H. Goy	94	C. H. R.	87
H. Bowden	94	N. T. W.	85
W. Porter	94	Lavander	85
Cetaceum	93	Osprey	85
A. Shaw	93	T. H. W.	85
Theophilus	93	T. Guttridge	85
A. Howard	92	A. M. S.	85
J. Martin	92	J. T. Bowker	84
Ert	92	Sakells	84
Samphis	92	Equus	84
Edinburgh	92	Vulpes	83
A. Thorpe	92	Sapientia	83
Sprayfield	91	Limonis	83
A. W. Sikes	91	W. Tarver	80
A. P.	90	R. Gordon	75
Araitchby	90	Cyathus	65
E. P. Greenhalgh	90	Minore	60
F. R. Dudderidge	90	Antipyrin	60
Fac Pacem	90	Brown	60
Myrrh	90	Aloe	55
Excelsior	90	Sweet William	40

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

*** All communications should include the names and addresses of the writers.

EDINBURGH.—The fact that the powder did not deflagrate on charcoal might be taken as an indication that the nitrates were not present in quantity; but this is a rough test, and nitrates might be present to the extent of 1 or 2 per cent. without producing any appreciable deflagration.

FERRUM.—You say, "To another portion of the sulphate filtrate added nitric acid and silver nitrate," and you observe that a precipitate not readily soluble in ammonia was produced. From this you concluded that chlorine was absent. What about the chlorine which you introduced in the form of barium chloride, according to your report, for the purpose of precipitating the sulphate?

SEMPER FIDELIS.—You ought to have evaporated to dryness the solution which failed to give a precipitate with ammonium carbonate; and having expelled ammoniacal compounds by ignition, the residue should have been examined for potassium. The only direct evidence you gave of the presence of potassium was the flame test.

TRESILLIAN.—According to your report you "took a little of the powder and made a strong solution in a watch-glass, added a few drops of dilute hydrochloric acid, ammonium chloride, hydrate and carbonate, and sodium phosphate, methylated spirit, and platinic chloride." You observe that the effect produced was "a yellow crystalline precipitate and a slight amorphous precipitate," from which you concluded that potassium was present with ammonium as an impurity. Nobody would venture to dispute the presence of ammonium, considering that you added compounds of ammonium three times to the solution; but your conclusion that a trace only was present is not calculated to meet with universal assent.

C. H. R.—You observe that phosphates, if present, would have been likely to give an acid reaction to test-paper; they are not characterised by any such peculiarity.

LAVANDER.—The group reagents should be added successively to the same solution of the powder, instead of taking fresh solutions for each reagent.

OSPREY.—The dense white vapours which you observed on heating the powder consisted of ammonium bromide. The phenomenon had nothing to do with the presence of chlorides.

T. H. W.—The colour of the silver nitrate precipitate may have appeared white by artificial light, but by daylight it was distinctly yellow. There is a certain resemblance between the smell of bromine and that of chlorine, but you ought to be sufficiently familiar with each to recognise it with certainty.

T. GUTTRIDGE.—The behaviour of the powder with strong sulphuric acid, and the difficult solubility of the silver nitrate precipitate in ammonia ought to have suggested a bromide.

A. M. S.—It was unfortunate that you were unable to confirm your suspicion of the presence of bromine. The behaviour of the powder with

strong sulphuric acid could not be accounted for by the presence of chlorine, and you ought to have recognised the smell and colour of the gas evolved.

J. T. BOWKER.—It will repay you to compare carefully the reactions of bromides with those of chlorides. Note that bromine as well as chlorine bleaches litmus. You ought to be able to distinguish the halogen elements by smell.

SAKELLS.—See above remarks about the distinction between bromine and chlorine.

VULPES.—You ought to make a careful experimental study of the reactions of bromides and iodides, noticing particularly the different colours of the vapours, the difference of smell, and the marked difference in the colouration of starch-paper.

SAPIENTIA.—You will be surprised to learn that bromine was the cause of the five reactions you so confidently attributed to iodine. Your previous knowledge of these reactions was evidently derived from reading, not from experiment. See remarks to Vulpes.

LIMONIS.—See remarks to Sapientia.

W. TURVER.—The powder gave a distinct sublimate when heated in a dry tube, thus suggesting the presence of a volatile salt. There was no difficulty in obtaining the ammonium reactions.

R. GORDON.—When the greater part of the solution which failed to give a precipate with ammonium carbonate was evaporated to dryness, and ignited to expel ammoniacal compounds, a decided residue remained, and it gave all the actions of potassium.

CYANTHUS.—If the mixture had had the composition you assigned to it, it would not have been soluble in water. It is remarkable that you were able to make aluminium hydrate produce so many of the phosphoric-acid reactions. It is physically impossible that you could have obtained a yellow crystalline precipitate on adding a nitric-acid solution of ammonium molybdate to a nitric-acid solution of aluminium hydrate. When you added magnesia mixture to a similar solution, of course the neutralisation of the acid precipitated the aluminium hydrate; but the precipitate bore no resemblance to ammonia magnesium phosphate, which is distinctly crystalline.

MINORE.—You omitted the preliminary tests to which substances are usually submitted for the purpose of getting a general notion of their character before proceeding with the complete analysis in the wet way. You concluded that the powder contained potassium in the form of sulphate, chloride and phosphate. A solution of such a mixture would not give a precipitate with ammonia, as was the case with the mixture under examination.

ANTIPYRIN.—You observed that the powder was soluble in water, and, nothwithstanding this fact, you concluded that it contained barium and the sulphuric radicle, the constituents of one of the most insoluble of salts. We must refer you to a text-book of analysis for details of the course to be adopted with the precipitate produced by ammonia.

BROWN.—We recommend you to prepare a solution of ammonium chloride of known strength, and to try by diluting this solution, and applying the usual tests, what is the smallest quantity of ammonia that you can detect by smell with certainty, and what are the limits of detection with litmus and turmeric papers.

ALOE.—We need scarcely point out to you that a mixture of aluminium sulphate and barium bromide would not dissolve in water. It is not clear from your report to what solution you added ammonium carbonate; if the solution contained aluminium, of course it was precipitated as hydrate.

SWEET WILLIAM.—Your report is unintelligible; it is simply a list of reagents with a note opposite each as to the effect produced on something which you do not mention. We want a report which will convey a clear idea of the work done.

Metropolitan Reports.

THE NORTH KENSINGTON CHEMISTS will meet at the Leinster Hotel on Tuesday evening next. Our note last week gave the 15th as the date, which happens to be Sunday. This was an error.

THE HOLLOWAY TRAGEDY.—The man Richard Oakes, aged 59, who has been charged during the week with having poisoned his child and attempted to commit suicide with his wife afterwards, is described as a chemist, although he is not on the register. We hear, however, that some time ago he was employed in Messrs. Burgoyne, Burbidges, Cyriax & Farries' laboratory.

THE BALACLAVA HEROES' FUND.—Messrs. Burroughs Wellcome & Co. have lent their factory and grounds at Dartford for a fête to be held on June 25. There are to be concerts, aquatic and other sports, fireworks, and dancing. Tickets of admission, 1*s.* for one person, or 2*s.* 6*d.* for three, will be supplied to any chemists who may wish to go by Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, who will be able to get for the occasion cheap railway return tickets. A small extra charge will be made for the concert and ball.

A CONFERENCE of Chemists and Druggists of the East and North-East of London will be held in the Boardroom of the Hospital for Diseases of the Chest, Victoria Park (kindly lent for the occasion), on Tuesday, June 17, at 3 o'clock. The President of the Pharmaceutical Society has promised to be present, and to make "some observations on the laws relating to pharmacy, and to the sale of poisons." A discussion will follow, and various matters of interest to the trade will be considered. The meeting has been convened by Mr. William Harvey (the dispenser at the above hospital), who is divisional secretary for North-East Bethnal Green.

ALLEGED DIVULGENCE OF TRADE SECRETS.—In the City of London Court, on Monday, the case of Hewitt *v.* Jacobs, which was mentioned in last week's CHEMIST AND DRUGGIST, was disposed of. The plaintiff, Mr. Alfred Hewitt, dispenser, residing at Darwin Street, Old Kent Road, had sued the defendants, Messrs. Jacobs & Sons, trading as the Veterinary Medicine Refinery Company, 103 Houndsditch, E.C., to recover 2*l.* damages for having been wrongfully dismissed from the service of his employers, who, however, alleged that the step they took was justifiable because the plaintiff had divulged the trade secrets of the defendants' business to Mr. Barker, who was formerly in the defendants' employment, but who was now carrying on business on his own account. When the case was called on Monday, neither of the parties appeared, consequently it was struck out.

THE ANNUAL OUTING of the employés of Messrs. Evans, Lescher & Webb was held on Saturday, June 7, at Chislehurst, on the invitation of Mr. and Mrs. E. A. Webb. The morning was occupied with various sports, the chief event of the day being a 1-mile running handicap for a silver cup presented by the firm. The cup was gained by R. Prance. After the sports the company assembled in the village hall to dinner, presided over by Mr. E. A. Webb, who was supported by Mr. F. H. Lescher. Toasts followed, and after dinner a cricket match between "Office" and "Warehouse" was commenced, but could not be concluded. When time was called the score stood: Warehouse, 72 runs for nine wickets. The company then assembled to tea, after which the return was made homeward. Altogether, thanks to the fine weather and the admirable arrangements, the excursion was one of the most successful ever held in connection with the firm.

SINGULAR ALLEGED LIBEL.—At the last meeting of the Clerkenwell Vestry, on Thursday night, Mr. Churchwarden Davies, who was in the chair, said a postcard had been received, purporting to come from "101 Leadenhall Street," and signed "W. C." the contents of which were to the effect that Mr. Colwell, the newly-appointed analyst in Clerkenwell, is not qualified. This postcard had been brought to the notice of Mr. Colwell, and that gentleman had made a request to see it, which was granted; but the vestry retained possession of it. Mr. W. Chattaway, analytical chemist, of 101 Leadenhall Street, who was a candidate for the analyst's post in Clerkenwell, and who was supposed to have sent the card in question, now wrote denying any knowledge of the postcard, which bore his address and initials. He did this, he said, because he considered "Mr. J. K. Colwell in every way qualified for the appointment; and as no such document was either written or inspired by me, I feel bound, in vindication of my own honour, to investigate the matter." Mr. Chattaway consequently asked for a view of the postcard, as remarks in connection therewith were doing him serious injury in his business. The vestry granted this request also, the clerk remarking, however, that it would be a difficult matter to trace, as the whole contents of the postcard were printed with a type-writer.

CRICKET.—The Pharmaceutical Club is not playing this season. In a few years, if cricket and pharmacy attract the fair sex as they are doing now, it will be possible to have a mixed team of pharmaceuticals. There are six ladies studying at the Square just now, and about eight times as many gentlemen, but an eleven cannot be made up out of the lot. The schools on the south side of the river are a

little livelier. Last Saturday the South London School sent an eleven to Nunhead to meet an eleven from the Westminster College of Pharmacy, and gave them a bad beating. The scores were:—

Muter's School.		*Wills' College.*	
Armstrong, throwu out.. ..	46	Day, c Hulme, b Moore.. ..	0
Hulme, st Cowes, b Mountain..	15	Mountain, b Armstrong ..	0
Falkenbridge, o Biggott, b Mountain	2	Saunders, b Armstrong.. ..	0
Smith, c Hoole, b Whitehead ..	5	Coltman, c Smith, b Armstrong	1
Streatfield, b Mountain.. ..	0	Hoole, b Armstrong	1
Clarke, lbw, b Whitehead ..	0	Whitehead, b Armstrong ..	0
Bones, c Biggott, b Hoole ..	3	Biggott, b Armstrong	7
Moore, b Hoole	8	Weston, c Bones, b Armstrong	5
Shaw, b Hoole	2	Smith, not out	7
Stockdale, c Biggott, b Hoole ..	19	Cowes, b Moore	8
Mawer, not out	2	Bell, run out	0
Byes	17	Byes	13
	119		42

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BLACKPOOL.

A Chemist's Assistant Poisoned.—An inquest was held by the district coroner, Dr. Gilbertson, at the police station, Blackpool, on Tuesday, on the body of James Wharton, who died on Saturday night with symptoms of narcotic poisoning. The deceased, who was 27 years of age, was a chemist's assistant, and had managed Mr. Chadwick's branch shop, 92 Church Street, South Shore, since May 29. He was of a bright and cheerful disposition, but from the evidence it appeared that he was in the habit of taking drink. On Saturday, when the errand-boy, Joseph Fisher, 11 years of age, returned from his dinner, he found the deceased sitting in a chair behind the counter asleep. He was wakened, but was incapable of serving a customer. Later on in the day he showed signs of intoxication, and latterly became quite helpless. The errand-boy smelt laudanum in a glass, and thought Wharton had been drinking that poison. This suspicion was mentioned to Robert Whiteside, another assistant, and, as Wharton's breathing had become heavy, Dr. Sharp was sent for, but when he arrived Wharton was dead. At the inquest Dr. Sharp, judging from the symptoms, said that deceased died from laudanum poisoning, and the jury returned a verdict accordingly.

BRIGHTON.

Association of Pharmacy.—Annual Dinner.—The fourth annual dinner of the Brighton Association of Pharmacy was held on Friday evening June 6, at Booth's Restaurant, East Street. The president of the society (Mr. W. D. Savage, J.P.) occupied the chair, and was supported by the Mayor of Brighton (Mr. Alderman Manwaring), Dr. Newsholme (medical officer of health), Dr. Goode, and between twenty and thirty pharmacists. The honorary secretary (Mr. Marshall Leigh) read a letter from Mr. Alderman Cox, J.P., who regretted his inability to be present. That gentleman, however, again invited the members of the association to join him in a trip up the river Arun some time during the present month. The invitation was received with hearty applause. Letters of regret for non-attendance were also received from Mr. Carteighe (President of the Pharmaceutical Society) and Messrs. Aston and Gulliver (of Worthing). After dinner the usual loyal toasts were honoured, and Mr. Marshall Leigh proposed "The Health of the Mayor," and commented on the progressive spirit in which the town was governed. The mayor, in replying, said he was happy to say that he had had the pleasure to spend a quarter of a million of money on improvements, all of which had passed through his hands, and not a farthing of the money had been wasted. Having referred to the increased rentals received by reason of the improvements, and to the fact that the rates had been reduced in consequence, the mayor said there was a serious blot on Brighton. Insanity was greatly increasing in the town. He did not know whether it was due to overwork or over-eating (laughter), or to over-drinking; but the rate was increasing in Brighton to the extent of twenty-five every year. Seven out of every ten of the cases were the result of either their own or their parents' excessive drinking. Mr. E. Histed proposed "The Medical Profession," which, he said, in Brighton was second to none in the kingdom. Dr. Goode replied to the toast, and Dr. Newsholme proposed "The Pharmaceutical Society," to which Mr. G. Watkin, the local secretary, replied. Mr. Jago, F.C.S., gave "The Brighton Association of Pharmacy," and urged some curtailment of the hours of labour. He coupled the name of Mr. Savage with the toast, stating that he was one of the oldest and most respected men in Brighton. He had been president of the association since 1872. Mr. Savage briefly replied, remarking that if the association did not do much, it brought them together once a year, and he thought that that was a very good thing. The toast of "The Committee" having been given by Mr. Shepherd, and responded to by Mr. Williamson, the proceedings were brought to a close. During the evening several songs and recitations were capitally rendered by members of the company.

DERBY.

The Weekly Half-holiday.—The majority of chemists of Derby have fallen in with the rest of the tradesmen, and have begun to close their shops at two o'clock on Wednesdays. One or two of the chemists in the centre of the town kept open, but as the Wednesday Half-holiday Association are delivering handbills from house to house asking the people not to shop after two o'clock, there will practically be no trade on those days.

DOVER.

Chemists' Association.—A meeting of the chemists in this district will be held at the Apollonian Hall, Dover, on Friday, June 20, at 5 P.M., to meet and discuss with the President of the Pharmaceutical Society any matters of "trade interest" that may be brought forward.

LIVERPOOL.

New Light on an Old Subject.—Over eleven years ago certain Liverpool chemists were discussing the legality of allowing an unregistered assistant to manage a branch shop owned by a registered proprietor, and it was decided to refer the question to the secretary and registrar, at that time Mr. Elias Bremridge. The reply was put away with a number of other letters and forgotten, but within the last few days it has come to light. It is now before the writer, and runs as follows:—

Pharmaceutical Society of Great Britain,
17 Bloomsbury Square, London, W.C.,
January 2, 1879.

Mr. ——,
Liverpool.

Dear Sir,—I am in receipt of your letter of yesterday's date. There is nothing in the Pharmacy Act, 1868, to prevent a registered chemist and druggist from placing a branch establishment in charge of an unqualified assistant.

Yours faithfully,
Elias Bremridge,
Secretary.

IRELAND.

A Bankrupt Chemist.—Notification is issued by the Irish Court of Bankruptcy that the estate and interest of Mr. J. Stuart Stevenson, a bankrupt chemist, late of Rogerson's Quay, Dublin, will come under the public auctioneer's hammer on Tuesday next, June 17.

Personating an Inspector.—For personating Mr. Toler, Inspector of Food and Drugs, Dublin, a commercial traveller named Moorhead, who endeavoured by threats to extort blackmail from a local trader, has been remanded for inquiry into his connection with the city chemist. The prisoner is said to have been formerly a chemist and druggist in Belfast.

THE WEEK'S POISONINGS.—John Williams, a silversmith, residing at Ranelagh, Dublin, attempted last week to solve "the great perhaps" by drinking the contents of a 2-oz. bottle of laudanum; hopes are entertained of his recovery. A married woman named Wallace was more successful in getting outside a quantity of cyanide of potassium, through which she achieved her object; an inquest was held, and the usual verdict returned. Patrick Long, a gasfitter, who said he "was tired working," struck, through the agency of carbolic acid, from which he was relieved by the stomach-pump; he is now waiting trial for his rash act.

ON THE WARPATH.—Mr. George Lane M'Cormack, a Monkstown pharmacist, contributes to the *Irish Times* an exhaustive letter on the Pharmacy Amendment Bill, in the course of which he describes chemists and druggists as "law-breaking hucksters, ignorant of the difference between corrosive sublimate and lump sugar, except by their relative weight." He urges that the Bill may be thrown out, and that a grant be given by the Government to enable the Pharmaceutical Society to bring to justice those who are openly defying the Poisons Act.

DESTRUCTIVE FIRE.—Last week a serious fire, resulting in great destruction of property, occurred on the premises of Messrs. J. & G. Boyd & Co. (Limited), chemists and druggists, William Street, Limerick. The flames were discovered in a stable in the rear of the establishment, and soon spread to the dry-goods store, which, together with the offices, was quickly gutted. By strenuous efforts the fire was prevented extending to the front shop and to a huge oil-tank; but two adjoining houses suffered considerably. The damage at Messrs. Boyd's is estimated at 10,000*l.*, including 4,000*l.* worth of new stock, all of which is covered by insurance. It is not known how the fire originated.

THE CHEMISTS' AND DRUGGISTS' ASSOCIATION OF IRELAND.—At a meeting of the committee of the Dublin branch of this Association, held on June 15, Mr. McNeight in the chair, the sub-committee reported correspondence and interviews which had taken place in consequence of Dr. Kenny's proposal that representatives of the Pharmaceutical Society and of the Association should discuss the points of the Bill now before Parliament. Mr. Alexander had suggested that unless it was understood beforehand that those composing the conference on both sides were fully empowered to come to distinct and binding terms, it would be folly to meet, as no practical results would accrue. Mr. McNeight had had interviews with Dr. Kenny and Mr. Evans (President of the Pharmaceutical Society); but, finding the representatives of the Pharmaceutical Society had no power to agree to any proposals that might be made at the conference, declined under the circumstances to hold negotiations. Mr. Dowling, honorary secretary, said it was the intention of the directors of the Apothecaries' Hall to propose the insertion in the Amendment Bill of a clause legalising certain examination conditions hitherto carried out by precedent. Mr. McNeight stated that so satisfactory was the present state of affairs that the only point in dispute was the title of the future grade. Mr. Boyd consented to proceed to London in time for the committee stage of the Bill.

SCOTLAND.

ABERDEEN.

DRUG CONTRACT.—The Finance Committee of the St. Nicholas Parochial Board have accepted the offer of Mr. A. Craig to supply their poor with medicines and medicaments for the year ending May 14 next, at the rate of 11*d.* per head on the average number on the roll.

DUNDEE.

THE HALF-HOLIDAY movement has begun here again, but there is no sign of the chemists following the example of all other shopkeepers. Only one drug-shop was shut last Wednesday.

THE CHEMISTRY CLASS of the University College is having a round of all the sights of technical interest in the neighbourhood. Professor Percy F. Frankland last week took his students over the gasworks, Mr. McCrae, the manager of the works, accompanying them. This was an interesting visit. Mr. McCrae, being an expert chemist, has greatly developed the treatment of residuals, and that department is a special feature of the works. On Friday the students were to visit Tennant's sulphuric-acid works at Carnoustie, a large village at the mouth of the Tay.

EDINBURGH.

THE WEEKLY HALF-HOLIDAY.—For some months there has been a movement among all classes of shopkeepers in favour of a weekly half-holiday. The result is that now nearly all shopkeepers have arranged to shut at 2 o'clock one day a week during the summer months. The only class excluded from this benefit is chemists. Some of these, however, in the suburbs who do not keep qualified assistants, are displaying the association card in their window, intimating that they will close for the afternoon on a certain day each week. In the larger chemists' shops, there already exists an arrangement among the assistants for a weekly afternoon off, and now, in view of the agitation among other traders, most of those places where such an arrangement has not been in force are granting this concession.

THE ELECTION OF EXECUTIVE is to take place on Wednesday, June 18. A meeting of the members and associates resident in Scotland, has been called for that date at 12 o'clock in 36 York Place. The business on the agenda is:—(1) Chairman's remarks. (2) Result of election of executive. The following gentlemen have agreed to act if elected.

*1. Boa, Peter, 119 George Street, Edinburgh.
2. Coats, John Thomson, 91 Broughton Street, Edinburgh.
3. Coull, George, 17 Smith's Place, Leith Walk, Edinburgh.
4. Davison, Thomas, 338 St. Vincent Street, Glasgow.
5. Ewing, James Laidlaw, 52 North Bridge, Edinburgh.
*6. Fisher, John Hutchison, 63 High Street, Dunfermline.
*7. Frazer, Daniel, 127 Buchanan Street, Glasgow.
*8. Gibson, Adam, Thistle Street Lane, East, Edinburgh.
9. Gilmour, David, 40 Bridge Street, Dunfermline.
*10. Gilmour, William, 11 Elm Row, Edinburgh.
*11. Hardie, James Millar, 68 High Street, Dundee.
12. Johnston, John, 45 Union Street, Aberdeen.
13. Kermath, William Ramsay, 1 No. Bell Street, St. Andrew's.
*14. Kerr, Charles, 56 Nethergate, Dundee.
*15. Kinnimont, Alexander, 69 So. Portland Street, Glasgow.
*16. Lawrence, Samuel, 101 George Street, Oban.
*17. Mahen, Thomas, 9 Oliver Place, Hawick.
*18. McAdam, Robert, 34 Virginia Street, Glasgow.
*19. Mackenzie, James, 45 Forrest Road, Edinburgh.
*20. Neshit, John, 162 High Street, Portobello.
*21. Paterson, James, 15 Regent Quay, Aberdeen.
*22. Stephenson, John Bertram, 48 Frederick Street, Edinburgh.
*23. Strachan, Alexander, 133 Rosemount Place, Aberdeen.
*24. Thompson, Thomas, 35 George Street, Edinburgh.

* Those marked with an asterisk are members of the retiring executive, but are eligible for re-election.

GLASGOW.

THE SALICYLIC ACID QUESTION.—At the last meeting of the Glasgow and Scottish Section of the Society of Chemical Industry, held in Glasgow, Dr. G. G. Henderson, of the chemical department, Glasgow University, read a note on the purification of artificial salicylic acid. Dr. Henderson, as we have formerly reported, was associated with Professor Charteris in his earlier experiments on the acid, and after discovering the toxic body, he ascertained that it could be easily removed by the process suggested by the late Mr. John Williams. This process is substantially that which Professor Attfield recently incorporated in his annual report on the British Pharmacopœia, and consists in neutralising a hot solution of salicylic acid with chalk, a sparingly soluble calcium salicylate being thus formed. The impurities present in the artificial acid (cresotinic acid, &c.) are also converted into calcium salts, but they are easily soluble in water. The recrystallised calcium salicylate is decomposed with hydrochloric acid, and the salicylic acid thus liberated is washed with water and recrystallised from dilute spirit. It is then obtained in large, prismatic crystals, which cannot be distinguished from the crystals of the natural acid. If the acid contain even a very small quantity of impurity, it crystallises in very fine needles, which are all matted together. This difference in the crystalline form is by far the simplest test of the purity of the acid.

General News.

EFFECTS OF DRINKING METHYLATED SPIRIT.—On Tuesday of last week Elizabeth Brannan was sent to prison for fourteen days for endangering the life of her child by falling on it whilst intoxicated. The prisoner had been drinking methylated spirit, and was so overcome that she had to be carried to the police station.

SOAP PRICES ADVANCING ABROAD.—Soap is one of the many articles of which the price is advancing on the Continent. Conventions of soap manufacturers were held on May 28, in Breslau, for the Silesia and Posen districts, and on May 31, in Coblence, for the Rhenish Westphalian provinces, at which it was unanimously decided to advance the quotations. A number of Vienna soapmakers have also agreed upon an advance in the price of their goods.

PROFIT-SHARING.—The shareholders of Clarke, Nickolls & Coombs (Limited) agreed at their last annual meeting that for the future profits over 6 per cent. should be divided equally between the shareholders and the workpeople employed. The company has been paying 10 per cent. dividends. It employs over a thousand persons. An enthusiastic meeting was held a few evenings since, at which the workpeople presented the directors with an illuminated address expressing their appreciation of the promised benefit.

CHEMICAL SOCIETY.—At the next meeting, to be held on Thursday, June 19, at 8 P.M., there will be a ballot for the election of Fellows, and papers will be read on the following subjects—viz, "Invertose: a Contribution to the History of an Unorganised Ferment," by C. O. Sullivan, F.R.S., and F. W. Tomson; "The Action of Carbonic Oxide on Nickel," by Mr. Moud and Drs. Langer and Quincke; "The Interaction of Iodine, Water, and Potassium Chlorate," by Henry Bassett; "The Milk of the Gamoose," by A. Pappol and H. D. Richmond.

POISONED BY PICRIC ACID.—On Tuesday of last week a shoemaker named Joseph Barker, of St. Margaret's, Suffolk, drank—unintentionally, as he states—some fluid preparation used by shoemakers, containing picric acid. Mr. J. R. Staddon attended, and gave an emetic. Barker thereupon became very violent, and threatened Mr. Staddon with a knife. The police were called in, and he was conveyed to the hospital, and is now out of danger. Barker, it appears, had been drinking heavily, and twice on that day he drank the poison. He applied to Messrs. Cornell & Cornell, chemists, Ipswich, for laudanum, but was not supplied.

THE PHARMACEUTICAL QUARREL IN TURIN.—Last week we gave some particulars of a lawsuit brought by the old-established Turin pharmacists against thirteen of their *confrères* who had recently commenced business without having previously obtained Government concessions for so doing. The judgment of the court, which was delivered a few days ago, is entirely in favour of the old chemists, the thirteen new-comers being condemned to the costs of the trial and ordered to shut up their shops. The execution of the judgment, however, has been deferred, pending the final decision of the highest court, to which the defendants have appealed.

ACCIDENTAL POISONING OF A DOCTOR.—An inquest has been held at the London Hospital on the body of R. E. McKenzie, 48, an American physician and surgeon. The wife of the deceased stated that she and her husband were on a visit to England, and were staying at the Three Tuns Hotel, Aldgate. On Wednesday of last week deceased took some powders, and directly afterwards became insensible. A doctor was sent for, and he advised deceased's removal to the hospital, where he died the next day. Deceased always carried a bottle of morphine pellets about with him. Mr. A. J. Gedge, house physician, said the post-mortem examination showed that death was in all probability due to morphia poisoning. A verdict of "Accidental death" was returned.

LAUDANUM-POISONING.—On May 26, at Pershore, Hereford, an inquest was held on the body of Mr. Thomas Price, 52, who died from laudanum-poisoning. The deceased had been in the habit of taking drugs for years, and on the Friday prior to the inquest he purchased 2 oz. of tincture of opium from Mr. A. W. Smith, chemist and druggist, Pershore, stating that he wanted it for cattle. He returned to to the Three Tuns Hotel, where he was staying, and the next morning was found dead in bed. Mr. Rusher, surgeon, attributed death to narcotic poisoning, and said the bottle which contained the laudanum was found close beside the bed. The inquiry was adjourned.

SALE OF POISONS.—Mr. Ryan-Tenison, of Bexhill-on-Sea, has followed up his inquiry to the *British Medical Journal* regarding the sale of poisons by addressing a letter to Mr. Richard Bremridge, in which he said: "A patient of mine has been able to obtain, since July last (1889), about 20*l*. worth of opium and morphine from three chemists. Now, what I want to know is, whether your Society is willing to help on any movement for putting the sale of opium in such large quantities to irresponsible persons under stringent restrictions? Surely that one person can legally be supplied with 20*l*. worth of a poisonous remedy points to the uselessness of the Act in its present form. I am laying the matter before the British Medical Association with a view to getting it placed in hands which can procure legislation on the subject." To this Mr. Bremridge, four days later, replied: "I have every reason to believe that the Society would give due consideration to any reasonable proposition for the amendment of the law as to the sale of poisons."

THE MUSK-DEER.—The Berlin Zoological Garden has come into possession of the first living specimen of the male musk-deer which has ever reached Europe. On looking at the little animal, says the *Illustrirte Zeitung* (we quote from the *American Druggist*), when lying in its cage, it appears like a puny fawn of dark chocolate-brown colour, with a few indistinct but lighter stripes and spots upon the rump, and a somewhat greyish head ending in a peculiar, broad snout. When it is at liberty, however, its movements and actions are so singular that it seems to many visitors to have a resemblance to a kangaroo. A favourite position of the animal is to sit upon its haunches, curving the back very considerably, and placing its fore feet between its hind feet. Frequently, after remaining in this position for a long time, it suddenly twists, lifts and turns the fore part of its body in a most astonishing and almost incredible manner, jumps to and fro, and suddenly, perhaps, assumes the rôle of a beast of prey, cautiously sneaking or prowling. Its small, long, and pointed hoofs are placed flat on the ground, and the fetlocks are so low that they touch the ground likewise. No illustrations which have heretofore appeared, and which have been made after museum specimens, do justice to the animal. The male animal is distinguished from the female particularly by having protruding tusks, like those of a boar; on the other hand, there is not a sign of antlers noticeable.

CARBOLIC-POISONING.—An inquest was held at Liverpool, on June 6, touching the death of Samuel Donabee, a labourer employed in the sanitary department of the Corporation works. On the Saturday previous the man was found lying in a state of insensibility in Everton Brow. His clothes smelled strongly of carbolic acid, and he was taken by a police-constable to the East Dispensary, where he was attended to by Dr. Booth, but he ultimately died from carbolic-acid poisoning. A bottle of the acid, quite full and with a glass stopper, was found in his pocket. His clothes were saturated with acid, and his face and mouth bore signs which must have been produced by his drinking a large quantity of it. The deceased had to use carbolic acid for disinfecting purposes, and it was given to him in quantities of a gill at a time. The jury returned an open verdict, and added a presentment that it was desirable for all carbolic acid for sanitary and other purposes to be as far as possible contained in vessels labelled "Poison."—On June 9 an inquest was held at Bootle, near Liverpool, on the body of George Probyn, 26, a dock labourer, of 49 Canal Street. On the 5th inst. deceased was found in an unconscious condition in his bedroom. The medical evidence showed that death was due to carbolic poisoning. A bottle containing the acid was found between the deceased's bed and the wall of the room. Verdict, "Suicide whilst temporarily insane."

CHLORODYNE-POISONING.—On Monday, June 9, an in-

quiry was held at Buckland, near Portsmouth, touching the death of Sarah Williams, aged 28, the wife of Maurice Williams, an engine-room artificer, serving on H.M.S. *Excellent*. The deceased had been in the habit of taking opiates. The husband had warned the chemists of the town not to supply her, but she managed to obtain the drugs by sending the neighbours' children for them. On Friday of last week she was found dead in bed, and Dr. J. Green, after post-mortem examination, stated that death was due to poisoning by chlorodyne. A bottle containing the drug was found under deceased's pillow, from which 80 or 90 drops of chlorodyne had been taken. A verdict of "Misadventure by taking an overdose of chlorodyne" was returned.

INDUSTRIAL EXHIBITION IN JAPAN.—A correspondent of the *Chemiker Zeitung* gives an account of an industrial exhibition (the third of its kind) which was opened at Tokio on April 1 and will continue until the end of June. The drug and chemical section of the exhibition is one of its most unsatisfactory parts, although it reveals considerable progress in these branches of industry among the natives of Japan. Besides many well-known raw products of the country, there is an interesting exhibit of petroleum, kerosene, and machine-oils, made by the firm of Nihon in Koyu-Gaisha, and an illustrated account of the petroleum-fields of Yechigo, which have yielded the material for these articles. The Japan Iodine Company, the firm of Kase in Yamasaki, and the Drug-house of Yechisenya (S. Sugimoto) exhibit a number of pharmaceutical preparations of considerable purity and merit.

FIRES.—On Saturday last a fire broke out at the warehouse of Mr. B. Adams, chemist, Market Place, Mansfield. A considerable quantity of combustibles was usually kept in the warehouse, but fortunately there was only a little benzoline in a tank in the place at the time the fire occurred. The flames were subdued before much damage was done. A man named Denman was rather severely burnt whilst helping to extinguish the fire.—On Tuesday there was a fire on the premises of Mr. J. H. Waldron, chemist and druggist, Broad Street, Hanley. Frank Webster, one of Mr. Waldron's employés, went down to the cellar to draw off some black varnish from a barrel. He had a candle with him. The candle lit the varnish-vapour, an explosion followed, the varnish-barrel was shattered, the contents taking fire, and young Webster received somewhat serious injury to his face. The fire brigade soon put the fire out, but the stock in the cellar was considerably damaged.

FATAL MEDICINE MISTAKES.—At Sheffield Mrs. Harriett Raynor died from the effects of an overdose of laudanum. Mrs. Raynor was suffering from bronchitis and had been ordered by the doctor to take some laudanum to induce sleep. The bottle containing this was placed with other bottles, and she took a dose in mistake for her ordinary medicine, with fatal effect.—An extraordinary case of poisoning has occurred at Milan. A widow named Ravizzo had been in the habit of taking a certain medicine for heart disease. This she recommended to a friend, giving her a bottle to procure it in, on which was written, as she thought, the prescription. The friend procured the drug, but was seized with violent pains after taking it. Ravizzo seeing this foolishly drank the remainder to learn if she had made no mistake but had given the right bottle. She was at once attacked with the same symptoms, and, in spite of remedies, died. Her friend is in extreme danger.—An inquest was held at Birkenhead on May 27, touching the death of Elizabeth Jones, aged 29, a single woman. The deceased had been an invalid and was in the habit of taking laudanum. On the previous Sunday she took a large dose, which proved fatal. A verdict was returned of "Death from natural causes, accelerated by the injudicious use of laudanum."—A little boy aged 3 years, named George Halton, of Stockport, died in great agony on June 5, after drinking a preparation of atropia, which his mother had left in his way.—An inquest was held by the Lancashire county coroner on June 5, on the body of Mr. J. A. Polding, veterinary surgeon, of Bury. The deceased had been suffering from chronic rheumatism, and a lotion had been given him by the doctor composed of belladonna. This was in deceased's bedroom, and it is conjectured that he drank it. A verdict was given of "Death from narcotic poisoning, self-administered, but under what circumstances there was no evidence to prove."

FRENCH PHARMACEUTICAL NEWS.

(*From our Paris Correspondent.*)

THE EFFECTS OF ETHER-INHALING.—A lady pleaded a chronic state of muddle-headedness through inhaling ether when charged at the police court, a few days since, with exchanging her antiquated headgear for a new hat, valued at 3*l.*, in a well-known shop. The magistrate let her off with a fine of 1*l.*, on the cost of the hat being paid into court.

THE FRAUDULENT SALE OF MARGARINE as butter is as prevalent in France as elsewhere. M. de Villebois Mareuil intends submitting a Bill to the Chamber by which manufacturers of margarine will be forced to sell their product rose-coloured. Also, by this Bill, manufacturers will be prohibited from producing and selling both the real and imitation article.

THE FRENCH MANUFACTURING PERFUMERS have had the question of a Chambre Syndicate before them for some time. It is now taking a definite form, fifty-one of the leading firms connected with this important trade having signified their desire to become members. A strong committee has been formed, with M. Guerlaix aîné as president, for the purpose of deciding on the course of action the Chamber shall take.

PRODUCTION OF SALT IN FRANCE.—In 1876 upwards of 550,000 tons of salt were produced in France; since then the output has reached 666,000 tons. The product is obtained principally from the departments of the Bouches du Rhône, Landes, Charente Inférieuse, Doubs, and Meurthe and Moselle, also from the small island of Ré, on the west coast. The annual consumption of salt in this country is equal to the production of fourteen years ago. About 376,000 tons are used for purposes of alimentation.

PLAGUE OF CRICKETS IN ALGERIA.—News recently to hand states that the valley of Nahr-el-Ouassil, Upper Cheliff, is infested with crickets. Masses of them fill the river, and the putrid fermentation resulting causes much uneasiness. Fifteen hundred soldiers have been despatched from Oran to assist in turning the tide of the plague, and certain eminent chemists are said to be giving the matter close attention.

L'ACADEMIE DES SCIENCES.—M. Friedel read a paper before the Academy on Monday concerning certain discoveries made by him, with the assistance of his son, M. Georges Friedel, regarding the action of alkaline clays on certain minerals. By submitting mica to the action of potash, soda, and chalk, he obtained five minerals, which have undoubtedly been produced by the same means in nature. Impressed by these excellent results, the administrative commission of the Academy has voted a subsidy to Messrs. Friedel to aid them in continuing their researches.

CAUGHT IN HIS OWN TRAP.—The idea of drugging wine which disappears surreptitiously is old, but a steward named Bertrand Cattète has got into serious trouble at Auch by the death of one servant and illness of four others through drinking wine he had poisoned. Cattète had exchanged the wine alloted for the servants' use by some of very inferior quality. The latter found this out, and took what they considered their own by picking the lock of the cellar-door, on discovering which the steward poisoned the whole cask. He now has to answer to a charge of manslaughter.

PROTECTION IN FRANCE.—The object the French Chamber has in view in imposing a duty of 3f. per 100 kilos. on rice is probably that of protecting its Oriental possessions. Rice is very little used in the form of food here, so that the direct sufferers from this duty will be the firms who use the article for producing starch or spirits. Protection seems to win all along the line in this country, and when the commercial treaties terminate two years hence foreign goods will be still more heavily taxed. The result must be to increase the already high cost of living, especially in Paris, as ordinary taxation is not likely to be reduced. Another effect will be to further cripple the export trade of the country.

Pharmaceutical Society of Ireland.

THE Council of this Society met at 11 Harcourt Street, Dublin, at 3 P.M. on Wednesday, the 4th inst., the President (Mr. Charles Evans) in the chair. The other members of the Council present were the Vice-President (Mr. Wells), Professor Tichborne, Dr. Burnes, Messrs. Doran, Merrin, Beggs, Hodgson (treasurer), Simpson, and Hayes.

Formal Business.

A report from the Law Committee was discussed and adopted, and resolutions passed thereon.

Licences were sealed for the following gentlemen who had passed the April final examination:—Messrs. Charles L. Crosbie, John J. Curtin, Edwin L. Gilbert, Edward James O'Donnell, Charles O'Hagan, and James Patrick Milwood.

The Belfast Prosecutions.

Letters were read from Messrs. Samuel Gibson and Thomas McDowell, of Belfast, requesting the Council to withdraw the prosecutions against them for illegal dispensing.

The Vice-President said that when the two other cases were tried—one being for illegal compounding, and the other for the illegal sale of poisons—it was agreed that, if an appeal should go against them, the result of it should decide the present cases. These gentlemen now asked to have the prosecution against them withdrawn, but they did not say anything about paying the costs.

Dr. Burnes: Let us tell them that we will not proceed further against them if they pay the fines and costs and publish statements in the newspapers that they will not infringe the law again.

Mr. Hayes: I would not ask for so heavy a punishment as that. If they pay the 5*l.* penalty and costs, we should proceed no further against them.

The Vice-President: We have still to go down and fight the other two cases.

Mr. Hodgson: Mr. Gibson is very much bound up with the gentlemen who are promoting the Amendment Bill.

The Vice-President: He is their treasurer.

On the motion of Mr. Hodgson, seconded by Dr. Burnes, the following resolution was passed:—

> That the prosecution against Mr. Samuel Gibson, Belfast, be withdrawn upon his paying the fine and all expenses to the present time, and writing a letter undertaking not in future to compound prescriptions, which letter is to be written in accordance with the views of our legal adviser.

On the motion of Mr. Doran, seconded by Mr. Simpson, a resolution in similar terms was passed with reference to the case of Mr. Thomas McDowell, of Belfast.

The late Earl of Milltown and the Pharmaceutical Bill.

The following letter from the late Earl of Milltown was read:—

> May 27, 1890.
>
> Sir,—I have to acknowledge the receipt of your letter and enclosed Bill, which shall have my best attention on my return to town, when, should you desire it, I shall be happy to see a deputation from your Society.
>
> Your obedient servant,
>
> Milltown.
>
> The Registrar, Pharmaceutical Society of Ireland.

The President: Gentlemen, you have all heard with great regret of the death of the Earl of Milltown. We have lost a staunch friend; and the loss is a very serious one to us at the present juncture.

Dr. Burnes moved that the letter of the late Earl of Milltown be entered on the minutes.

The Vice-President seconded the motion, which was unanimously agreed to.

Thanks to M.P.'s.

Letters were received from Messrs. R. W. Carter and T. M. O'Connor enclosing letters from Mr. Webb, M.P., and Mr. Carroll, M.P., in relation to the Amendment Bill.

The President: Mr. Webb, M.P., went most fully with us into every detail connected with the Bill.

The Registrar was directed to thank Messrs. Carter and O'Connor for their communications.

Recognising Schools.

A letter was read from Dr. John Muter, Lecturer on Chemistry in the South London School of Pharmacy (Limited), stating that he had been instructed by the board and directors of that institution to apply to the Council to place it on the list of schools recognised by the Society. The writer stated that it was the oldest school in Great Britain next to that of the Pharmaceutical Society of Great Britain.

On the motion of Dr. Burnes, seconded by Mr. Merrin, the consideration of Dr. Muter's letter was deferred until the next meeting of the Council.

Congratulatory.

Mr. P. J. Devlin, a licentiate, wrote congratulating the Council on the success of their Belfast prosecutions, and enclosing the membership fee. A similar letter was received from Mr. James Kiloh, licentiate, Cork.

Pharmaceutical Chemists and Public Appointments.

A letter from Mr. W. C. Carden, licentiate, announced that he had been appointed apothecary to the Waterford District Lunatic Asylum, and suggested that a list of the licentiates of the Society who held public appointments should be printed in the Calendar.

On the motion of Mr. Simpson, seconded by Mr. Hayes, the suggestion of Mr. Carden was adopted.

The Irish Certificate in the United States.

A letter, dated May 13, from Mr. Frederick B. Kilmer, New Brunswick, stated that registration would be granted to the licentiates of the Society in the following States of America:—Alabama, Arkansas, North and South Dakota, Indiana, Georgia, Indian Territory, Maryland (except Baltimore), Washington, Mississippi, Nevada, Oregon, Texas, Montana, New Mexico, Tennessee, Utah, Vermont, and Wyoming.

On the motion of Dr. Burnes, seconded by Mr. Merrin, thanks were voted to Mr. Kilmer for his letter.

Charges against the Examiners.

A letter was read from Mr. George Brown, M.P.S., in reference to the London City School.

The Vice-President remarked that, as the letter contained charges against the examinations of the Society, it might be well to refer it to the Law Committee, in order that they might report upon it.

Mr. Hayes thought the letter ought to be treated with contempt.

The Vice-President said that Mr. Brown himself had to work very hard to pass the Society's examination, and he did not find it so very easy to do so. The number of candidates that were rejected proved either that some of the men who came up were a very bad lot, or that the examinations were a fair test of qualifications.

The letter was ordered to be marked "Read."

Various Applications.

Mr. William C. Harvey wrote, asking whether the Council could accept from him a certificate of practical pharmacy from the qualified manager of a company.

The President: This manager is a pharmaceutical chemist, but the others of the firm are not.

The Vice-President: According to our regulations we cannot receive this certificate.

The Registrar was directed to reply to Mr. Harvey, stating that his application could not be entertained.

A Preliminary certificate was accepted from Mr. John Ewing, but Mr. H. B. Creagh, who asked to be granted the licence, was told the Council had no power to accede.

Nominations for Membership.

The following gentlemen were nominated for membership of the Society:—Mr. Alexander Ferguson Allen, the Adelaide Hospital, Dublin; M. Peter J. Devlin, Thurles; Mr. James Kiloh, Cork; Mr. Francis Joseph Neale, Rathgar, Dublin; Mr. Patrick Scanlan Pearse, Limerick; Mr. J. W. Williams, Fermoy.

Some other business having been disposed of, the Council adjourned.

Legal Reports.

The Pharmacy Act.—Police Prosecution.

At the Bradford West Riding Court, on Monday, June 9, before Colonel Hirst, C.B., Mr. George Hodgson, and Mr. E. P. Arnold-Forster, Joseph Holroyd, of Cleckheaton, was charged under the Pharmacy Act with not having complied with the provisions of the Act in respect to the sale of a poisonous drug on May 28 last. Mr. W. H. Hines, solicitor, appeared for the defendant. Superintendent Symonds, said the defendant was the proprietor of an establishment in Westgate, Cleckheaton, which he called the "Medical Hall," and on the day named he sold to a woman who called at his shop a small quantity of laudanum in a bottle supplied by him, upon which there was neither his own name nor address, but simply the word "Poison" on a red label. The defendant was without any qualification to sell such drugs, and probably subsequent proceedings would be taken against him for so doing. Emily Rukin, the wife of John Rukin, miner, of Hartshead Moor, Cleckheaton, said she went to the shop of the defendant, Holroyd, on the forenoon of May 28, last, and asked for sixpennyworth of laudanum. The defendant supplied her with the drug in a bottle provided by him, for which she paid 1*d.*, and 6*d.* for the laudanum. There was nothing upon the bottle except a red label containing the word "Poison." She went home and took all the sixpennyworth at one dose. Mr. Hines, in cross-examination, endeavoured to elicit from Mrs. Rukin that she had been in the habit of taking laudanum, but she denied that she had ever taken any before. She had asked for the drug for another woman, but that was a falsehood. She also denied that Holroyd refused to sell her the drug. John Rukin, husband of the last witness, gave evidence of finding his wife on that day, in a semi-unconscious state. In consequence of what she said, he searched the house and found the bottle bearing the red label. The police were informed, and a doctor was called in. The latter used the stomach-pump and other means to abstract the poisonous fluid. Sergeant Lawson, who was called in, said he took possession of the empty bottle, and next morning visited the shop of the defendant and asked him whether he sold laudanum, and how much he had sold to a woman on the previous day. At first defendant said he did sell laudanum, and then denied having sold any to any woman on the previous day, saying that he was not certified to sell such drugs. The bottle was sent to Mr. Allen, Sheffield, West Riding analyst, who gave evidence to the effect that it had contained laudanum. Mr. Hines, for the defendant, denied the sale, and called a witness named John Ogden, cabinetmaker, Cleckheaton, to prove that Mrs. Rukin called at the defendant's shop on the morning of May 28, and in his presence asked for a shilling's worth of laudanum, which defendant refused to sell her. Mr. Hines stated that under the provisions of the Pharmacy Act he was prohibited from calling the defendant. The Bench considered the offence to have been proved, and imposed a fine of 40*s.*, with costs, or one month's imprisonment.

The Irish Pharmacy Act.—Prosecutions at Belfast.

In the Belfast Summons Court on Friday last, before Mr. R. J. Eaton, R.M., Mr. Thomas McClelland, J.P., and Dr. McGee, J.P., four cases were listed for hearing, at the suit of the Council of the Irish Pharmaceutical Society, against members of the chemist and druggist trade in Belfast, for the sale of poisons and dispensing or compounding of medical prescriptions, contrary, as alleged, to the existing law. It will be remembered that the same bench imposed a fine of 5*l.* in each of two cases on a former day—one conviction being against Mr. W. J. Rankin, New Lodge Road, Belfast, for the sale of laudanum, and the other against Mr. R. Henderson, Great Victoria Street, for compounding a medical prescription, both parties not being, as contended, registered for these purposes. Mr. Henderson's case was carried on appeal before the Recorder of Belfast, who confirmed the magistrates' decision. In Mr. Rankin's case it was understood that a case would be "stated" for the superior courts, and meantime the Association of Irish Chemists and Druggists promoted a Bill in the House of Commons to amend the law under which these actions had been brought.

At the sitting of the court on Friday,

Mr. McErlean, solicitor (with whom was Mr. W. Harper) said his clients, the traders who had been summoned, were unable to proceed, as the court had not "stated" a case in the Rankin prosecution, and they had therefore had no opportunity of having the various points reviewed by Chief Baron Pallas, whose opinion would be of inestimable value.

Mr. Eaton said a case had been brought before the Recorder, who had agreed with the magistrates that a non-registered chemist had no right to compound a prescription.

Mr. McErlean admitted that the case referred to was settled by the Recorder's decision, but it was in Mr. Rankin's case that they had consented to send forward points for review, and, although the usual preliminary notice had been served, nothing had been done. They were unable to act until the Court "stated" the case.

Mr. Eaton: Why do you not draft a case "stated," and let us see it?

Mr. McErlean said it was the duty of the magistrates, and the magistrates alone, to draw up the statement.

Mr. Eaton was under the impression that a case had been decided quite recently in England, in which a similar decision to this was recorded.

Mr. McErlean replied that the law in England and Ireland was altogether different. In England two registers existed, and in Ireland only one; and they held that the Pharmaceutical Society had no standing in court so long as they omitted to comply with the statute requiring two registers to be kept—one for pharmaceutical chemists and one for chemists and druggists. The point, therefore, in the English case was different and distinct from that raised here. The point in England was that a duly-qualified chemist only, and not his employé, could fill up a prescription. The point here was that a duly-qualified chemist who was not registered, because the Pharmaceutical Society thought fit to ignore the Act and have no register, should not sell poisons. The element of law entered largely into the case of Mr. Rankin, so far as to raise the right of a chemist to sell poisons, even irrespective of the second register which should be kept. But this position was the broad one, that the Pharmaceutical Society could not come into court until they had a second register, and were able to produce it. He was prepared to argue on the poisons question that any person had a right to sell poisons.

Mr. Eaton: The Act of Parliament provides for the sale of poisons, and you cannot go beyond that.

Mr. McErlean: Yes; but there is a section which provides that the clauses they have gone under shall not be in operation until certain things have been done, and especially until the register of chemists and druggists has been made out. I think we are entitled to have the case stated.

Mr. Eaton was afraid there was some misapprehension regarding a promise of the court to state a case. He had no recollection of any such promise, nor had his brother-magistrates.

Mr. McErlean and Mr. Harper assured the court that the promise was a most distinct one, given in open court, and reported in the press.

Mr. Eaton did not see that there was any case to be stated; there was really no vital point to be submitted to the superior courts.

Mr. McErlean was surprised that the court should take this view, seeing that the four cases listed for that day were adjourned on the special ground that it was necessary to obtain the opinion of the superior courts before going further. He appealed to the court to reconsider the position of affairs.

Mr. McInerney, barrister-at-law (for the Pharmaceutical Society), said there was a remedy if the magistrates did not grant a case. The defence could apply for a mandamus to compel them to do so.

Mr. McErlean called Mr. Clotworthy, a well-known chemist and druggist in the city, and asked that he should be sworn to prove from recollection the promise of the court to state a case.

Mr. Eaton said he could not allow a witness to prove to the court that the court had done a thing which the court was satisfied it had not done. It would be most irregular to take evidence of that character.

Mr. McErlean said most respectable traders and many independent witnesses were ready to testify to their recollection of the promise, and of the understanding upon which the cases stood adjourned.

Dr. McGee: That is no reason why we should not come to the conclusion from our own recollection that we gave no promise and entered into no understanding.

Mr. McErlean: I suppose it is not, your worship, but it is rather hard on our clients.

Mr. Eaton: Is there not a Bill before Parliament to settle this whole business?

Mr. McErlean: There is; and perhaps if we had another adjournment the last would be heard of these cases.

Mr. Eaton: That would be an easy way of disposing of the difficulty.

Mr. McErlean: At any rate, we cannot go on in the face of what has happened, for your worships' refusal to state a case comes on us by surprise, and we were not ready for it With such men as Mr. Sexton and Mr. William Johnston in charge of the Bill, it is sure to pass, and that will give the unmistakable sanction of the Legislature to a legitimate trade and calling, and prevent these gentlemen of the Pharmaceutical Society from attempting the confiscation of property all over the country. I would suggest an adjournment.

Mr. McInerney said he had no objection to an adjournment, as he did not want to take the other side by surprise.

It was then arranged that the cases should stand over for a further term of six weeks.

The Apothecaries Act.—Action against a Chemist.

On Wednesday, 11th inst., in the Alfreton (Derbyshire) County Court, before his honour, Judge Barber, Q.C., the master, wardens, and the Society of the Art and Mystery of Apothecaries of the City of London claimed 20*l.* from Edward Merrick Greensell, chemist and druggist, of South Normanton, Derbyshire. The action was brought under the Apothecaries Act (1815), and the penalty was claimed on the ground that "during the month of January, 1889, and during several succeeding months afterwards, defendant, not being qualified to do so, did act and practice as an apothecary by then and there as such apothecary attending, advising, and furnishing and supplying medicines to and for the use of certain persons—to wit, one Thomas Bamford and one Joseph Boot."

Mr. Nelson appeared for the plaintiff company, and Mr. Slack, solicitor, of Clay Cross and Chesterfield, defended.

Mr. Nelson said that section 14 of 55 George III., c. 194, enacted that "it shall not be lawful for any person or persons (except persons already in practice as such) to practice as an apothecary in any part of England or Wales, unless he or they shall have been examined by the said Court of Examiners, or the major part of them, and have received a certificate of his or their being duly qualified to practice." And section 20 prescribed a penalty of 20*l.* against every person so offending. Section 26 provides that this penalty may be recovered by action in the name of the Society of Apothecaries, and in the case of Apothecaries Company *v.* Burt, 19 L. J., Exch. 334, it was decided that such action might be brought in the County Court. Unless defendant was in possession of a licence by some Scotch or Irish Licensing body at the time of the passing of the Medical Act, 1858, or was fully registered and had obtained a certificate of qualification, he was liable for the penalty. The practice of an apothecary consisted in attending and advising patients afflicted with diseases requiring medical (as distinguished from surgical) treatment, and supplying medicines for their cure or relief. The class of cases described consisted of such diseases as consumption, pleurisy, and all diseases of the heart, stomach, liver, &c., when unattended by any external wound or sore, and when medical treatment, unaided by manual operation, was called for. In the following cases the definition of an apothecary was carefully described:—Allison *v.* Haydon, 1 Moore and Payne, 588; Apothecaries Company *v.* Greenough, 1, 2, B. 799; Apothecaries Company *v.* Lotinga, 2 Moody and Robinson, 495. The latter case was the leading case on the subject. Mr. Justice Cresswell in an elaborate judgment in that case distinguished between a surgeon and an apothecary; he said: "I apprehend that an apothecary is a person who professes to judge of internal disease by its symptoms and applies himself to cure that disease by medicines. . . . If, for instance, in the case of a broken leg it becomes necessary to administer medicine, no doubt the surgeon may lawfully do so; but, on the other hand, if a surgeon take upon himself to cure a fever he steps out of his lawful province, and is not authorised to administer medicine in such a case. You then, on the whole, are to say whether, in the instances proved before you, the defendant acted as an apothecary or as a surgeon. Take the case of Ann Pace. It is said that hers was a surgical case; but can a consumption fairly be so classed? . . . But then, it is said, if he did not supply the medicines as a surgeon, still he did not supply them as an apothecary, but as a chemist. But a chemist is one that sells medicines which are asked for; whereas if you believe the evidence, the present defendant himself selected the medicines and determined on which he ought to give." In the recent case of Apothecaries' Company *v.* Welch, before the Divisional Court, and of which shorthand writers' notes of judgment were produced, the Master of the Rolls laid it down that it was unnecessary to prove that the "defendant acted as an apothecary in every respect and to every intent; if he acted in any way as an apothecary he breaks the Act." The case of Apothecaries' Company *v.* Bentley (1 Carr and Paine, 538) had decided that the *onus probandi* was on the defendant to prove he was registered. The only qualification, however, which defendant had, or alleged to have, was "L.M., Coombe House, Dublin," which entitled a man to practise in midwifery. He had no further qualification than a certificate from the Derby Infirmary. In 1888, a man holding this very same degree—if he might call it so—was defeated in an action brought against him by the Apothecaries' Company, in Burslem County Court. The only thing, therefore, incumbent on the plaintiffs was to prove the defendant had practised in case of diseases which had been treated medically as distinct from surgically, that he had supplied medicines, and had been paid for his services. The defendant for some years acted as an unqualified assistant to qualified medical men in the district, but for the last few years had been carrying on a large practice ostensibly as a qualified medical man. He kept an open surgery in the main street in South Normanton. He interviewed patients, and supplied them with medicines. He had printed bills, which were sent out periodically. He was a medical officer to twelve or fifteen sick clubs in the district, in which his practice and treatment was almost purely medical. He gave certificates of illness from various causes, some of which were produced. He also gave certificates of death, both to the registrar of births and deaths and to the officers of the various clubs. The registrar and officers had been subpœnaed to produce the certificates. The coroner would also prove that certificates had been tendered certifying death which had been refused by him. By the Friendly Society Act every medical officer of a friendly society must be a qualified medical man. A certificate to this effect had been obtained. The treasurer of some of the clubs and other people would prove payment to the defendant of bills for medicine and medical services. In every respect defendant had acted as though he were a fully-qualified man. It was needless to explain how unfair this was, not only for people who were entitled to have the proper qualified assistance of a doctor, whether they were members of a club or not; it was also unfair, and tended to bring into disrepute the medical profession, which had always held such a high position for skill, refinement, and culture in the country.

His Honour asked what the defence was?

Mr. Slack replied that they had acted as an apothecary. But he had to raise a technical objection. It was provided by Section 27 that twenty-one days' notice must be given.

Some discussion followed, from which it appeared that the Society had given notice to the defendant twelve months previously.

Mr. Slack ultimately withdrew his objection, but pleaded that his client did not know the law on the subject.

His Honour said this was a useless plea. Every man ought to know the law.

George Adams, of Pinxton Wharf, a member of the Perseverance Lodge of Oddfellows, said the defendant was the doctor. In May he was suffering from pleurisy, and Dr. Greensell gave him a certificate to obtain his sick pay. The defendant supplied him with medicine. He was an officer of this club, and his duties as steward was to pay sick members. Before paying sick members he required a medical certificate. He had had them from members.

His Honour: Now, Mr. Slack, is this gentleman on the register?

Mr. Slack: He is not.

His Honour (handing Mr. Slack a certificate): Do you mean to say after that he is not acting as an apothecary?

Mr. Slack: There is a qualification attached to that name.

By Mr. Slack: He had been in the defendant's surgery, where there were a lot of bottles filled with medicine. He did not know that he had ever represented himself as a medical man.

Mr. Slack: Have you satisfied yourself that the certificates given were proper ones?

The Witness: No.

His Honour: If ever there was a medical certificate, this is one; and if it had been produced to me in court as a matter of evidence I should have treated it as such. This man is no more a doctor than I am, or authorised to sign a certificate like this. It is simply ridiculous to come and argue seriously before me that a man who acts as medical officer to several clubs is not passing himself off as an apothecary under the Act.

Mr. Slack: If the man had had no qualification, but he was a licenciate of the Coombe College.

His Honour: He is not registered under this Act; if you ask me to overrule the Act of Parliament, you might as well tell me to jump over the moon. I shall not do it. The Act says that before a medical man shall act as an apothecary he must be registered under this Act. Apparently he is acting as a medical officer to several clubs, and when I have him in the box I shall ask him a few pointed questions. There are some things which are too plain.

Mr. James Slater, the secretary of the Prince of Wales Lodge, South Normanton, deposed that the defendant was medical officer to that club. His duty was to attend members in sickness, to find them in medicine, and sign certificates. They paid him 3*s*. per head per annum. He produced bills and receipts which had passed between the society and the "doctor."

Mr. Joseph Jackson was also called, and proved that the defendant had attended him for rheumatics. He did not belong to any club. He had not paid him for the medicine yet.

His Honour: Has he sent you a bill in?

Witness: No; I am expecting it every day.

His Honour: You may not get it now.

Mr. Slack: What made you expect a bill?

Witness: Because he attended myself and child. It was in the latter end of last year he attended my child.

By his Honour: I did not know he was not a properly qualified medical man.

Mr. John Fowkes stated that the defendant had attended his wife during illness, and until her death, supplying medicines. His wife died of consumption.

By Mr. Slack: Defendant did not attend his wife for a disease of the womb. Defendant had an open surgery at South Normanton.

Mr. Slack: Is there "doctor" over it or "surgeon"?

His Honour: That does not matter.

Mr. Slack: Does it say Dr. Greensell?

Witness: I have never looked.

Is it there or not?—I do not know. I know there is a house and shop there.

Do you know he is a chemist and druggist?—I do not know.

Do you know he is a doctor?—I know he acts as one.

This ended the case for the prosecution, though Mr. Nelson said he could call many more witnesses.

Mr. Slack said his defence was that the defendant was qualified to act as a chemist and druggist. He was skilful——

His Honour: You need not address me on that. He is not registered under the Apothecaries Act. I refuse to hear you upon it.

Mr. Slack: He is entitled to act in midwifery cases.

His Honour: I am not speaking of midwifery. We have no such things before us.

Mr. Slack: I wish to put that forward to show this man has a qualification to act.

His Honour: He has no authority to act. If you say it is bad law take it somewhere else. I will grant you a case.

Mr. Slack: The defendant is a man who has been some seventeen years an assistant to Dr. Bingham, of Alfreton, and has carried on——

His Honour: That has nothing to do with the case. He may be fifty years in a medical practitioner's employment. Unless you can get over this fact that he is not registered under the Apothecaries Act and that he has acted as an apothecary, he is liable for a 20*l*. penalty.

Mr. Slack: My client pleads that though he has infringed the section of the Apothecaries' Act he was ignorant.

His Honour: No man could be ignorant of that. It was notorious how in all the daily papers these cases were coming forward, and it is the duty of every judge occupying the position I do to see that the law is enforced, and I shall do it. This is common enough, and I am happy to say this law is much better enforced than it was twenty or thirty years ago.

Mr. Slack: I may say his practice at South Normanton is something, and he has obtained the confidence of all these various clubs, and he might say, in addition to these Foresters' clubs——

His Honour: You may think it right to say this, but it is rather aggravating than minimising his offence, as it is making it so much more extensive. You can pursue your own course, but I doubt whether the defendant will do himself any good by coming into the box. Mind, what you are saying of his having gained so much confidence only tends in my mind to awarding the full penalty instead of a minor one.

Mr. Slack: I would just draw your Honour's attention to this fact that, though the maximum penalty was 20*l*., in consideration of the fact of no notice being given since December 1888, an opportunity should be given the defendant of apologising or purging his guilt.

His Honour. The length of time the notice has been given tells the other way.

Mr. Slack: Well, I contend that this is a case in which the minor penalty should be given, and that that will act as a deterrent to others.

His Honour: Are you going to put the defendant in the box or not?

Mr. Slack: After the remarks of your honour, I will not.

His Honour: I should say, in case the defendant afterwards complains to you, that you have shown good sense and sound judgment.

His Honour said the defendant had, no doubt, carried on the business of an apothecary. He might be extremely skilful. He might be a man in whom those who had trusted him had not misplaced their confidence. He could not take that for one moment into consideration. He had no right to look beyond these facts. Has this man acted as an apothecary? Has he got a certificate? Admittedly he has not. He would not abate one penny of the 20*l*. penalty even if the Medical Act of 1858 gave him the authority, which he did not think it clearly did. It had not been a mere chance breaking and disobedience of the Act. It had been a long persistent conduct. A man who had been trained under another medical man must be taken to have known what the law was, yet though he was warned a long time ago, it made no difference to his practising, and he had taken the practice of many persons who were certified. He had been a constant offender ever since he had acted upon his own account, and he did not think he should be properly discharging the duties the law imposed upon him if he did not inflict upon him the full penalty of 20*l*.

Mr. Slack applied for an order for payment by instalments.

His Honour said he had not the power, upon which

The defendant informed the Court he would pay the amount at once.

The Alleged Sheep-dip Libel.

On Wednesday, in the Queen's Bench Division, before Mr. Justice Day, without a jury, the case of Fairman *v.*

McDougall Brothers came on for trial, on an issue as to liability, the defendants demurring to a statement of claim. The plaintiff claimed damages in consequence of the publication by the defendants of a statement in respect to some arsenical dip, said to have been used by a farmer in South Africa, with the result that a large number of sheep had been killed. We reported in November, 1887, the end of an action brought by Messrs. Cooper & Nephew against the defendants in respect of the publication of this statement, when a verdict in plaintiff's favour was consented to. In the present case the plaintiff Fairman was the agent of Messrs. Cooper in Russia. The defendants contended that they had not libelled the plaintiff, but only commented on poisonous sheep-dips; and that as the plaintiff was only agent to Messrs. Cooper, the slander, if any, was cast on their goods, and not on those of the plaintiff; and that they had never published it in Russia.

Mr. Lane, for the plaintiff, said the defendants had published their libel in some ninety-five journals. In consequence of these paragraphs in the papers, the Russian Government had prohibited the use of the article there, and the plaintiff had had a large consignment returned on his hands from the custom-house at Odessa, and had lost large profits which would have accrued had he been allowed to use his dip amongst the large flocks of that country. The libel was not true, although not entirely a fiction; the sheep had been seriously injured by the neglect by the persons dipping them of the precautions conveyed in the packet of directions. This the defendants said was fair comment, but they had not ventured to plead a justification. The plaintiff was not the mere agent of Cooper's; he purchased the powder from them, but he was able to resell it at his own prices and on his own terms quite independently.

The plaintiff was called in support of his case, and said he was in business in Russia as a general merchant in 1884; he had negotiations with Messrs. Cooper, and it ended in an agreement to purchase their powder. He had obtained permission to use the dip, and had actually used it on some 4,000 sheep. In reply to the judge he said permission was required every time he used the dip. In cross-examination he said he had carried on other businesses in Russia besides this. He had sold five or six cases of this dip in Russia. The item of his claim of 914*l.* included his hotel living for some three years at, say, 30*s.* a day. The damages claimed, 10,000*l*, was a commercial way of putting his loss of business. (Laughter.)

Re-examined: The dip had not been previously known in Russia; it had succeeded all over the world, in West Australia, New Zealand, California, &c. He thought some 65,000,000 of sheep had been dipped. His net profit on the cases would be some 2*l.* each.

This closed the plaintiff's case, and

Mr. Justice Day said he thought no case had been made out. The publication of the alleged libel was, no doubt, large; but it did not, in his opinion, refer to the plaintiff's sheep-dip. The plaintiff's was a powder admitted to have arsenic in it. All powders and dips with poisonous ingredients were dangerous, and required great care in handling. This seemed to him to be more a denunciation of poisonous dips in general than an attack on the plaintiff or his dip in particular—an attempt to call the attention of the public to the dangers attending the use of them. It was written by a manufacturer of dips, it was true, one who, perhaps, from motives of prudence, withheld his name, and did not wish it to appear as if he were exalting his own wares or depreciating those of a rival. If the writers or the publishers thought they were doing it for the public good, they ought not to be censured for it. And because the dedefendants did it, possibly, in their own interest, that did not make the paragraph a libel. The general tendency of it was to prevent the use of such noxious agents, and to point out the results of using these poisons without great care; and no doubt those who did use them were not, as a rule, careful people. It was in his opinion no libel at all, a general denunciation and not of any particular character of wares. Further, he thought the plaintiff could not maintain the action; he had no dip of his own, but purchased it either wholesale or otherwise. It was founded, not on a misconception of the remedy, but on an extraordinary notion of the use of an action of libel. Then as to the plaintiff's claim there was 1,700*l.* put down for "expenses," and a fabulous sum claimed for a loss of business. He would not be a party to sending any such roving commission to Russia, as the plaintiff reserved the right of demanding, to discover what might be his problematical damages. The defendants were entitled to judgment and with costs, and he hoped that would put an end to such a frivolous action.

Judgment accordingly.

BANKRUPTCY REPORTS.

Re EDWARD LEE, Cowes, Isle of Wight, Chemist.

AT the Isle of Wight County Court, on the 4th, Mr. J. C. Mould, of Newport, applied on behalf of this debtor for his discharge. The Official Receiver (Mr. S. Wheeler) reported that the bankrupt had traded after knowledge of insolvency. Mr. Mould said there was a certain deed, under which three-parts of the creditors were paid, and then the bankrupt could not go on, as he found himself overwhelmed, having agreed to pay his father 60*l.* per year out of the business. His Honour said the discharge must be suspended for two years. A man who traded in that way was doing downright robbery. Mr. Mould: Would you not make it for one year, sir? His Honour: Certainly not. Discharge suspended for two years.

Re ALBERT MOORE, 19 High Street, Fulham, and 97 Norroy Road, Putney, Chemist, &c.

THIS debtor filed his own petition on April 26, having gross liabilities amounting to 1,612*l.* 5*s.* 10*d.*, of which 1,537*l.* 10*s.* 10*d.* are expected to rank, against assets valued at 1*l.* 12*s.* 8*d.*, after allowing for preferential claims. He accounts for his deficiency by the following items:—

	£	s.	d.
Deficiency at April, 1837	422	3	6
Bad debts	11	14	8
Household expenses since April, 1837	500	0	0
Law costs, estimated at	200	0	0
Money paid and still owing in respect of the purchase of the business	380	0	0
Depreciation in stock, &c.	22	0	0
	£1,535	18	2

The following are the principal creditors:—

Unsecured.

	£	s.	d.
Allen & Hanbury, Plough Court, Lombard Street, E.C.	19	19	5
Bartlett, J., Wimborne, Dorset	31	0	0
Boldoot, J. C., Amsterdam	17	5	0
Bourne, Johnson & Latimer, 34 Castle Street, Holborn	11	0	0
Barclay & Sons, 95 Farringdon Street, E.C.	37	12	0
Connor, E., 4 Knaresboro' Place, Earl's Court	84	0	0
Dear & Co., Southampton	13	12	0
Gibbs & Co., Melton Street, E.C.	11	0	0
Haines, M., Ursula Street, Battersea	50	0	0
Herrings & Co., Aldersgate Street, E.C.	31	18	0
Hearon, Squire & Francis, 38 Southwark Street, S.E.	140	17	3
Herbert, Reginald, Ranelagh Club, Barnes	33	5	6
Idris & Co., Kentish Town	47	16	3
Jones, P. H., Fulham	22	19	4
Keys, D., 15 Craven Street, Strand	50	0	0
Low, Son & Haydon, perfumers	10	0	0
Moore, M., 79 Morray Road, Putney	55	0	0
Moore, A., Queen Street, Leek	35	0	0
Parker, B. M., 60 Mark Lane, E.C.	13	0	0
Richardson, J., & Co., Leicester	14	4	7
Stapley, C. A., 59 Uxbridge Road, W.	300	0	0
Shepherd, F., Routh Road, Wandsworth Common	25	0	0
Schrinde, Carl, 4 Disraeli Road, Putney	55	0	0
Thomas, G. W., Fulham Road, S.W.	25	0	0
Twigg, Dr., Barnsley	21	0	0
Townsend, C., Nuneaton	14	0	0
Thornton, Captain, Reading	50	0	0
West, W. E., Junr., Lincoln	10	0	0
Whittaker & Grossmith, Silk Street, E.C.	12	0	0
Yardley, W., 42 Stockwell Road, S.W.	16	0	0

Partly Secured.

Hearon, Squire & Francis, 38 Southwark Street, S.E. (estimated value of security, 50*l.*) 77 0 0

Preferential.

Mesher, E., Waterford Road, Walham Green .. 20 0 0

The debtor states that until about three years ago he held the appointment of compounder at H.M. prison, Fulham. In 1880 he purchased for 150*l.* a half share in the business at High Street, Fulham, formerly carried on by Mr. C. A. Staples for about forty years. They traded together until 1882, when Mr. Staples retired, and the debtor continued by himself. The terms of the arrangement then made were that he was to pay his retiring partner 1*l.* per week for eight years, and at the end of that period a further sum of 200*l.* within six months. The contract was kept until two years, when the weekly payments were temporarily reduced to 12*s.* Mr. Staples now appears as a creditor for 300*l.*, and the debtor estimates that the purchase price of the business amounted to 756*l.* Twelve months since the late partner obtained judgment, and issued execution against him for 60*l.* in respect of overdue instalments, but consented to withdraw the execution on payment of the current instalments.

The debtor further states that in May, 1883, a deed of assignment was executed for the benefit of the creditors, under which he agreed to pay weekly instalments of 2*l.* until the debts then outstanding had been paid in full. The payments were kept up until the middle of 1884, when they ceased, and the debtor has now included the balances due upon such account in his statement of affairs under these proceedings. Mr. G. B. Francis, 5 Coleman Street, was the trustee under the deed of assignment.

The insolvency is attributed to the excessive price agreed for the purchase-money, and the debtor's inability to pay the whole of it; also to loss of old customers through death and removals, to excessive competition in the neighbourhood, and to the loss of his appointment as compounder at Fulham prison. The expenses are stated to have about equalled the profits made; there had been thirty judgments obtained recently; the drawings during the past three years had averaged 166*l.* per annum, and the debtor considers that he has been insolvent ever since he agreed to purchase the business in 1882. In August, 1887 he gave a bill of sale over the furniture to Messrs. Hearon, Squire & Francis, receiving as consideration 80*l.* cash. The amount was to be repaid by monthly instalments of 2*l.*, but only 3*l.* in all appears to have been repaid.

The first meeting of the creditors was held on Wednesday last, at the London Bankruptcy Court, under the presidency of Mr. Leadam Hough, Official Receiver.

The proofs having been called over, the chairman said he should require the debtor to furnish a cash account for the past twelve months, showing all receipts and payments.

The Debtor: Well, I shall have to prepare it from memory, then.

The Chairman: You must do the best you can. It is not to be expected that I can pass accounts showing debts of over 1,500*l.*, and assets 1*l.* 12*s.* 8*d.*, without full particulars. You can have access to the books.

The Debtor: The day-book will show that the business has declined tremendously within the last two years. However, I will prepare the best cash account that I can manage.

Mr. Hough: Yes; and upon the nature of that account will depend whether or not I shall require a goods account also. Having regard to the fact that you have not kept proper books of account, I must satisfy myself where the money has gone to.

Mr. Barnett attended the meeting as proxy for two creditors, but reserved his questions until the hearing of the public examination, which is appointed for June 20.

The chairman announced that he had sold the Court's interest in the stock at High Street, Fulham, for 20*l.*, the purchaser further agreeing to pay off the amount due for rent of the premises. The only other asset was a small amount of book-debts, the furniture being covered by a bill of sale. The latter transaction would have to be investigated at the public examination.

No resolutions were passed, the creditors electing to leave the matter in the hands of the Official Receiver to be dealt with in the usual course of bankruptcy.

Gazette.

PARTNERSHIPS DISSOLVED.

Bayliss & Cochrane, Belfast, mineral-water manufacturers and pharmaceutical chemists.

Riding & Hollings, Endsleigh Gardens, N.W., general medical practitioners.

THE BANKRUPTCY ACT, 1883.

Receiving Orders, Public Examinations, Adjudications, Dividends, &c.

Lovell, Francis Otley, Wellington Road, St. John's Wood, surgeon.—Adj.

Trade Notes.

MESSRS. WILLIAM RANKIN & SONS, of Glasgow, patentees of cork mats, are supplying views of the Forth Bridge printed on the cork flimsies which have come into vogue of late.

MESSRS. A. & M. ZIMMERMANN have published a useful pamphlet giving the most recent information regarding all the new remedies for which they are agents. It includes notes on orexin, and a very concise resumé of the recent salicylic-acid controversy.

THE MEDICINE STAMP AND INHALANTS.—Referring to the statement published in this journal, May 31, that Mr. Knight, of Edgware Road, had been informed by the Board of Inland Revenue that a certain pocket-inhaler sold by him is chargeable with medicine-stamp duty, Messrs. G. & G. Stern, of 62 Gray's Inn Road, write to say that they sent one of their pocket-inhalers with a bottle of pumiline essence to Somerset House, asking if these would be considered liable to the duty. The Board state that neither is liable. Messrs. Stern add, quite correctly, that no inhaler (the instrument) by itself is liable to duty.

Obituary.

FAULKNER.—On June 4, at Commercial Road, Newport, (Mon.), Mr. Henry Faulkner, chemist and druggist. Mr. Faulkner was chief magistrate of Newport last year He was a native of Oxford, but early in life left that university city and became surgeon-dispenser at one of the great ironworks in the Monmouthshire Valleys. It was whilst holding this position that the cholera scourge of 1848 swept over the land. He struggled manfully for the poor panic-stricken ironworkers around him, and he was subsequently presented with a gold lever watch, bearing an inscription recording the services then rendered. Afterwards he removed to Newport, where he embarked in the business which he carried on until the date of his death.

MACALLAN.—At Ellon, on June 4, Noah Macallan, chemist and druggist. Aged 46.

REYNOLDS.—A well-known resident in Bolton died on Wednesday of last week in the person of Mr. Richard Reynolds, who had attained the age of 85 years. A native of Pontefract, where his father was in practice as a solicitor, Mr. Reynolds was apprenticed to a chemist and druggist at Leeds, and after completing his term of service, and attaining the necessary qualifications, he was engaged for some time as an assistant in London. In 1828 he went to Bolton and commenced business on his own account in premises at the corner of Oxford Street and the Market Place (now Town Hall Square), and conducted it with much success. In 1866 he retired from business, which he transferred to his eldest son, Mr. Walter J. Reynolds, who still carries it on at the same place. It is a singular and remarkable circumstance that the same shop has been occupied for the long period of sixty-two years with the same business and by the same family, uninterruptedly. At one time Mr. Reynolds was one of the overseers of the poor for Great Bolton, but with that exception he held no public office. The deceased gentleman was a widower. He leaves five sons and three daughters, all of whom, with the exception of one daughter, are married.

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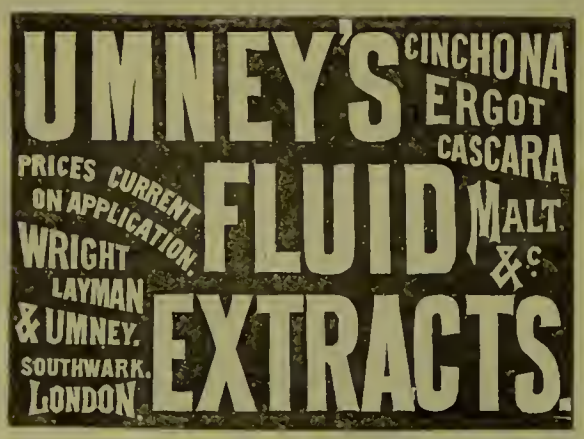

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EDITORIAL NOTES.

SHALL THE PHARMACY ACT BE ENFORCED?

THE agitation occasioned by the decision in the case of the Pharmaceutical Society *v.* Wheeldon is already beginning to fade, and we do not suppose that up to the present time much difference has been made in the practice of selling poisons. Probably these are supplied by unqualified persons to about the same extent as they were before the trial of the case alluded to. The fears of the unqualified, and the hopes of the qualified, in regard to the future, will very likely prove equally vain. At the annual meeting of the Pharmaceutical Society the President told the members that the Council were not going about to spy behind the counters to find out cases; it would be for them to move when they were called upon to move. If that means that they will go on for the next twenty years in the same manner as they have done in the past twenty years, with perhaps an occasional fling at the stores, we are inclined to regard the declaration as unsatisfactory. It is certain that no legislative progress in pharmacy can be made in this country except on the lines

laid down in the Pharmacy Act of 1868. Unless chemists are willing to adopt the principle of that Act—that the sale of specially dangerous articles shall be in the hands of specially qualified persons—they cannot hope for any extension of their rights and privileges. There is no occasion for the Pharmaceutical Council to go about the country spying out methods of business, and hunting for cases, though it may be remarked that this is exactly what they did at Birmingham as soon as they got their decision in the County Court at Wandsworth. The question is whether they intend to adopt any means of making the Act respected beyond those which have satisfied them hitherto. They are entrusted with the execution of an Act of Parliament in which much is rightly left to their discretion; but some little vigilance is expected from them, both by qualified men and by the public. Action once in twenty years on pressure from a peculiarly enlightened coroner, and an occasional raid for the sake of the fines on company druggists, whose general legitimacy they have not the courage to challenge, is not a sufficient fulfilment of the trust. Mr. Carteighe says the action of the Pharmaceutical Society should correspond in regard to chemists with that of the Incorporated Law Society in regard to solicitors. We do not know that any better model could be proposed. If the Pharmaceutical Council would get half as much protection for chemists as the solicitors have, they would do more than there is any present ground of hoping for. Who "moves" the Council of the Incorporated Law Society to action in the interests of the profession? It has not been found necessary for coroners or Government officials to do this. Information from within has proved quite sufficient.

Mr. Carteighe appears to be setting forth on a mission of education to the pharmaceutical body. He is to appear at Bethnal Green, at Kensington, and at Dover next week, and we presume may be booked for future engagements by addressing 17 Bloomsbury Square. It would seem to be hardly worth while attempting the conversion of the trumpery residue who voted against him at the last election, so that the object of this crusade is not very apparent. We are hoping that the purpose may be to influence opinion in favour of a vigorous move forward in the direction we have indicated.

THE OPIUM SEASON.

The first basket of the new season's opium arrived on the Smyrna market a couple of days before the end of May, and is said to have shown good quality, though of course that does not afford any clue with regard to the yield and the quality of the crop which is now being gathered. Our weekly reports have been witnesses that the Smyrna market, and to some extent the Constantinople one also, have for many weeks been in a rather excited condition, the "bull" speculators having maintained the upper hand generally, in spite of an occasional rally of the "bears." The reports of destruction, or rather failure of the crop, which obtain currency with great regularity every year, have been rather louder and more persistent than usual this season, and the fact appears to be fairly well established now that the yield is not likely to be more than a "fair medium" one. Several reports to hand from Smyrna and Constantinople, while differing as to the precise extent of damage suffered by the growing plants, agree in estimating the total yield in European and Asiatic Turkey at about 5,000 cases, more or less, provided always that the weather during the harvest operations should remain favourable. Five thousand cases will not quite suffice to supply the average requirements of the world for a year in Turkish opium; but in estimating the probabilities of a rise in the market, consequent upon this deficiency, account must be taken of the fact that the repeated advances in Smyrna and Constantinople have already, if not completely, at any rate to a great extent, anticipated the probable deficiency in the yield of the drug. After the exceedingly heavy crop of 1888, which followed the unusually small one of 1887, the prices of opium in Smyrna fell to very low figures, from which they only recovered towards the close of 1888. Early in 1889 the market again fell, but since the autumn of last year a renewed rise has set in, and in January, 1890, the price of pure Karahissar opium in Smyrna had risen to 128 piastres, or nearly double its value in June, 1888. There has lately been some decline, it is true, but the latest reports still quote fine Karahissar at 112 to 114 piastres. The total of the 1889 crop was about the same as the estimate of the present one, and unless the alarmist reports from Asia Minor should receive more reliable confirmation than they can boast of at present, or the quality of the new opium should prove unusually poor, we cannot discover much ground of justification for a further considerable rise in excess of the present Smyrna quotations. It is probably true that the winter sowings throughout Asia Minor have been very small and deficient in yield; but, on the other hand, the spring sowings, if our information is correct, have been rather larger than was originally anticipated, and they certainly have not suffered so much from the heat and drought as some interested parties in the East would have us believe. Rains appear to have fallen pretty abundantly throughout some of the most important growing districts in the middle of May, and again towards the end of the month, and thus the crop, which was in danger of serious damage from excessive heat and drought, has been saved for the most part, if not altogether. In the Salonica district of European Turkey where the crop promised unusually well, and a harvest of between 1,300 and 1,400 cases had been looked for, the output, we understand, is not so large as had been hoped, but still it will probably amount to about 800 cases. The buyers of opium in London and the West of Europe generally have hitherto—wisely, we should think—shown but little confidence in the excited news which has been spread by some houses in Smyrna, and our market has been slow to move, although recently a considerable part of our stock has been withdrawn from the markets, in expectation of definite news from Turkey.

A FIVE YEARS' CURRICULUM.

The principal business of the General Medical Council during its late session must interest chemists and druggists. Not a few of the more eminent members of the medical profession have passed their early days at the dispensing-counter, and there are sons of some now there, and assistants of others, to whom pharmacy is the stepping-stone to the higher branches of the healing art. But, apart from the personal aspect, pharmacy cannot ignore any changes in the nearly-related sphere of medicine, especially when change is in the nature of advancement; and the resolution to extend the medical curriculum from four to five years is in that direction. It is true that there is no curriculum in pharmacy: it is not old enough for that. Fifty years ago pharmacy was in the plasmoid state—now it is reaching a condition of higher differentiation; it is becoming fitted for more complicated formative processes, and the curriculum is merely a question of time. The medical profession, with its century or two of evolution, is far ahead of pharmacy, but the conditions of both callings are so similar, and the one depends so much upon the other, that the great advance

which is now contemplated in medicine must materially influence the conditions of pharmacy. The decision to extend the curriculum by a year practically means that the training will be made 25 per cent. more severe, and necessarily the result will be fewer survivors, and these better fitted for the life struggle. It is with these survivors that the pharmacists of the future will have dealings, and it is reasonable to expect that the pharmacist should advance in a degree corresponding with the physician. The future outlook of the pharmacist is black enough. Without hope of better prices, without hope of more purely pharmaceutical work, the life seems scarcely worth living; but this extended medical curriculum throws a ray of sunshine on the prospect. It means better educated, more enlightened, more liberal-minded physicians—all the virtues, in short, which are opposed to the doctor's dispensary, and which will abolish the unsatisfactory system of bottle-doctoring, which is much too prevalent in England. It will be when the physician ceases to be a compounder of medicines that the pharmacist will come into his kingdom.

Certain modifications of the Preliminary examination have been made which considerably affect the position of those who may have passed the pharmaceutical Preliminary and Minor, and who may wish to have these accepted *pro tanto*. The new regulations are to come into force on January 1, 1892, and are to the following effect: In English there will be a recommendation that writing from dictation should form part of the subject. Latin will remain as it is at present. The mathematics paper will include the second and third books of Euclid as well as the first. Elementary mechanics is dropped, as also are botany, zoology, and elementary chemistry from the optional subjects, so that the Minor certificate will be practically no more valuable than the pharmaceutical Preliminary when the new requirements come into force. One other resolution which may affect our own Preliminary certificate is that in which the Medical Council has agreed to alter the list of examinations accepted in lieu of their own, "so as to include only those the standard of examination of which, in the specific subjects of the Preliminary examination, comes up to the standard considered desirable by the Council." But the fact that the College of Preceptors conducts the pharmaceutical Preliminary may retain it in the list. We may add that the alteration of the Medical Council's list is likely to bring about alteration in the Pharmaceutical Council's one, as the latter follows the lead of the former in this matter.

The omission of the natural and physical science subjects from the medical Preliminary examination is a suitable introduction to the changes in the professional curriculum. The whole matter hinged upon a recommendation of the Education Committee of the Council, presided over by Professor Struthers, to the effect "that the course of professional study after registration occupy at least five years, on condition that the fifth year shall be devoted entirely to clinical work as subsequently defined." The Education Committee were also for stipulating that the first four years should be spent at a recognised school of medicine; this was agreed to, with the proviso stipulated in Sir Dyce Duckworth's motion, "that the first year may be passed at a university or teaching institution recognised by any of the licensing bodies where the subjects of physics, chemistry, and biology are taught." An exception to this was made in favour of graduates in arts and science whose degree examinations have included physics, chemistry, and biology. These resolutions account for the exclusion of the natural and physical sciences from the Preliminary examination. Hitherto the General Medical Council has stipulated chemistry and elementary physics and not biology as professional subjects, and the examining bodies which grant diplomas have followed in their wake; whereas the universities, notably London, Durham, Victoria, and the Scotch, have a first professional examination in which these subjects only are included. Some of the colleges have also for some time back ceased to require certificates of attendance at chemistry lectures; they have ceased, in short, to regard as important any subjects but those which are purely medical. Obviously, chemists and druggists cannot agree that chemistry is an unimportant subject to medical men; they have ample evidence in incompatible prescriptions alone that a little more chemistry would be advantageous to prescribers, and a better proof of its strenuous necessity lies in the fact that all physiological action is synonymous with chemical action, and that perfect therapeutics will never be attained until we have complete equality and harmony between chemistry and physiology as applied to medical study and investigation. For that purpose the study of physics and biology are correlative necessities in the fundamental education of the medical practitioner. These principles appear to have guided the Medical Council in their action, and in regard to the fifth year they had the practical training of the student entirely at heart. The present curriculum is very defective in this matter, clinical practice being squeezed in between lectures and demonstrations in such a manner as to leave the student a mere theorist when he has reached the diploma stage. The medical authorities cast him adrift here, but hitherto a few, who knew their weakness, have voluntarily sought the experience which they required, and this is now to be made general by the resolution "that the fifth year shall be devoted to clinical work at one or more recognised public hospitals or dispensaries, provided that of this period six months may be passed as pupil to a legally qualified medical practitioner holding public appointments, or possessing such opportunities of imparting practical knowledge as may be satisfactory to the medical authorities." But a recommendation even more valuable than this was agreed upon when the Council very generally approved of the principle that three subjects per session, with not more than three lectures on each per week, are sufficient, and that the time so gained should be devoted to class examination, tutorial work, and practical work. The Council would not specifically agree to go so much into detail, but they have adopted the principle of not more than three class lectures in one day, more practical work, and more clinical study. What this means can only be properly understood by those who have seen medical students rush from one professor's lecture-room to another, so that between this and demonstrator's lectures little time is left for personal observation, note-transcription, and reading. With these and other recommendations of minor importance the medical curriculum has now advanced in several directions, and the results are likely to be of the greatest good to medical practitioners and the public. It is true that the cost will be considerably enhanced, for practical work is an expensive thing, and the fifth year's study itself adds from 50*l.* to 100*l.* to the cost; but this is all in the direction of improvement.

"AD" DOES NOT MEAN "ADD."—The *Druggists' Circular* has an editorial with this heading. One of its correspondents thought it did, and our New York friend gives all and sundry a little bit of advice on the subject, adding, "The mistake referred to is a rather good argument against the employment of a dead language in live prescriptions." We should have taken it to be a good proof that the dispenser was unfit to be in the business.

COMMENTARY.

Our Students' Corner.—This month's report from fifty-two students is very gratifying, as it shows that the participants are getting very expert in qualitative analysis, and for this reason Mr. Moss, the conductor of the column, ventures to make a mixture of three salts the subject of the next competition. In this respect, the "Corner" will, therefore, be superior to the Major examination, and, obviously, its educational value will be considerably enhanced. We expect to see a larger number of competitors than ever next month.

The Irish Pharmacy Bill crossed the bar on Wednesday evening, and got safely into committee, though no discussion of its clauses followed. The lobby of the House of Commons was haunted all day by a considerable number of the supporters and opponents of the Bill from Dublin and Belfast. Sir James Haslett, Mr. Rankin, and Mr. Shaw, from the northern city, and Mr. McNeight and Mr. Boyd from the Irish capital, represented the druggists. Mr. Evans, Mr. Wells, and Mr. Hays were there officially, as members of the Council of the Irish Pharmaceutical Society of Ireland, and they were accompanied by several of their uncompromising supporters from Belfast. They had the pleasure of meeting their ex-chief, Mr. J. E. Brunker, from Dublin, who was giving his powerful influence on behalf of their opponents. Informal negotiations between the representatives of both sides were proceeding all through Thursday, but neither side seemed willing to yield enough to bring about a concordance.

Addendum to the B.P.—In a letter to the *Lancet*, Dr. William Murrell endeavours (with considerable success) to show that injectio apomorphinæ hypodermica is a preparation which has come into use as an internal remedy for cough rather than a hypodermic injection for producing vomiting, and he urges that camphor water is an ineffectual preservative, hydrochloric acid being better. The name is also misleading.

The Sale of Paris-Green by Unqualified Persons.—We learn from correspondents in several parts of the country that packages of Paris-green (arseniate of copper) are being supplied to the public by ironmongers and oilmen as an insecticide. This deadly poison is manufactured, put up, and supplied to these dealers by Messrs. Blundell, Spence & Co., Limited, of Hull and London. We have pointed out to that firm that they are thus encouraging illegality on the part of their customers, whom they subject, besides, to the risk of fines. They, selling the poison wholesale, and properly labelling it, are not liable to prosecution; but the open breach of the law, which we understand to be somewhat extensive, ought to be promptly checked by the Pharmaceutical Council. We advise chemists in all places where they know this article is being sold by unregistered persons, to send information of the fact to the Secretary of the Pharmaceutical Council; if they will be good enough to let us know as well, we will keep the matter to the front.

The Belfast Doctors and the Irish Pharmacy Bill. People interested in pharmaceutical legislation are puzzling themselves to ascertain which side is being taken in the present controversy by the medical profession of Belfast. A few days since the Pharmaceutical Association of that city drew up and sent to members of Parliament some arguments against the Bill, and accompanying their circular was a copy of a document bearing the signatures of seventy-nine of the qualified medical practitioners of the locality, declaring as follows:—

> We, the undersigned medical practitioners, in the city of Belfast, desire to record our opinion that it is undesirable in the interests of public safety to encourage the sale of scheduled poisons by establishing a grade of vendors with a lower qualification than that of pharmaceutical chemist, which corresponds to the lowest grade of qualification in Great Britain, that of chemist and druggist, and we consider that poisons cannot with safety to the public be sold by persons having no knowledge of their properties, doses, and antidotes.

With commendable promptitude the druggists followed up this with another circular, accompanying which was a document headed as follows:—

> We, the following duly qualified medical practitioners, are of opinion that the sale of foods and drugs, including poisons under the safeguard of the Poisons Act, 1870, by chemists and druggists such as we find carrying on business in our city, has been productive of public advantage, giving a supply to the public on favourable terms, and so far as we have been able to ascertain, has not been attended with accident to the community.

This expression of opinion is signed by ninety-seven medical practitioners, more than half of whom had already signed the previous declaration!

Dr. Thresh on Influenza.—Dr. John C. Thresh, medical officer of health for Chelmsford and Maldon, communicates to the *Lancet* a paper on the influenza epidemic in the public elementary schools in his district. This is, we believe, Dr. Thresh's first contribution to medical literature, and it shows all the thoroughness which characterised his pharmaceutical work. The principal point of the paper, apart from the value of the statistics, is a theory which is advanced to account for the gradation of suffering exhibited by the different patients. Leaning to the supposition that the disease is caused by an organism, Dr. Thresh suggests that the milder cases, which might pass unnoticed as influenza, would receive a certain degree of immunity from subsequent attack when the virus had increased in potency. This is exactly what did occur. Where the conditions favourable to the rapid development of the virulency of the organism existed in a high degree, young and old became almost at the same time susceptible to its influence. As to what the conditions referred to are, if they exist, we are at present profoundly ignorant, but we must assume that they are abnormal and temporary; hence, after a period which may vary in different places, the organism would more or less rapidly revert to its original condition. This process of attenuation and the diminished number of susceptible individuals would account for the gradual disappearance of the epidemic.

The United States Senators and Free Drugs.—Perquisites are by no means an unknown institution in this country, but we doubt whether we have anything to show in this line which could equal the system of "perks" in operation among that august body, the United States Senate. It appears from the official report and accounts of the United States Legislature, compiled by Gen. M'Cook, and of which some abstracts have been communicated to the *Manchester Examiner* by its New York correspondent, that an American senator in addition to a position equal in social standing with that of a cabinet minister, a salary of 1,000*l.* a year, plus an allowance of 250*l.* for a private secretary, 25*l.* for stationery, and free travelling, does not disdain to accept such little pickings as free visiting cards, the use (and that liberally) of a restaurant maintained at the capitol for the internal refreshment of the senators, free of cost, and that of a magnificently equipped barber and hairdresser's shop, where he can not only get a deadhead "shave" or "cut," but is also able to furnish himself with brushes for the hair, finger nails, clothes, teeth, and shoes, with bottles of bay rum, brilliantine, and dentifrice, with fancy soaps, and even with quinine and rhubarb pills, all at the expense of the

national treasury. It appears that the senators have consumed no less than seven thousand five hundred grains of quinine in three and five-grain pills during the past twelve-months. A portion of the national revenue was likewise devoted to the acquisition of two dozen jars of brown Jamaica ginger, three quarts of castor oil, six powder puffs, eight flesh brushes, three dozen sticks of Italian cosmetic, forty-two cases of apollinaris, with twenty-five boxes of lemons, five dozen of ginger ale, 800 lb. of granulated sugar, and 5¼ lb. of snuff, all for the use of the senators.

THE FORTHCOMING JAMAICA EXHIBITION.—In January, 1891, Prince George of Wales will open at Kingston, the capital of Jamaica, an exhibition designed to afford the natives an opportunity of acquiring by means of personal observation a practical knowledge of the best means of developing the industries of the Colony by the application of the latest and most approved methods of English and American mechanical processes. We briefly referred to the exhibition in our issue of March 1, but may now add that it will comprise specimens of all Jamaica products: Sugar and its allied industry of rum-manufacture, liqueurs, cordials, coffee, fruits of all kinds; pimento, cacao, annatto; woods in all degrees of preparation for use; spices, condiments, &c.; fibrous materials; cinchona, essential oils, perfumes, &c.; medicinal and economic substances; works of art, pictures, fancy articles, and ornamental work; and live stock of all kinds. The botany and geology of the island will also be fully illustrated. There will also be exhibited specimens of goods imported into Jamaica from all countries. Special attention will be paid to the essential-oil industry. Plants yielding such oils are very numerous in Jamaica, and they offer a wide field for the operations of the chemist and the cultivator of flowers for their perfumes. Many of the plants grow wild in large quantities; others, like the tuberose and jasmine, require to be cultivated. But the formation of flower-farms and the extraction of perfumes is still in want of encouragement. Some of the extracts and essential oils, however, which are are well known, are the wild cinnamon, vanilla, jasmine, lily, red muskwood, rosewood, orange, verbena, lemon, lime, pimento, blue gum, lemon grass, mountain thyme, ben-nut, cocoanut, walnut, &c. The drawback has hitherto been the want of the most effective and economical machines for extraction. Communications and applications for forms and regulations to be addressed, as early as possible, to Mr. Washington Eves, 1 Fen Court, London, E.C.

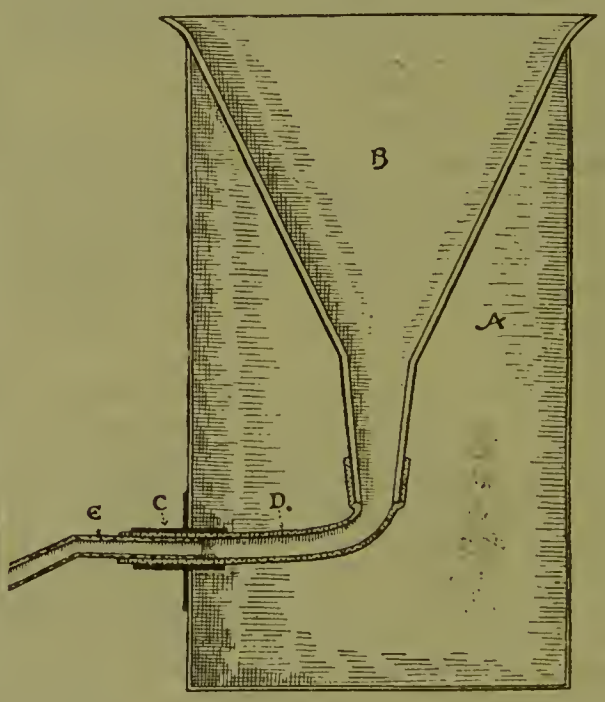
IMPORTING PETROLEUM INTO THE UNITED STATES.—The importation of petroleum into the United States would seem to be about as thankless a task as the proverbial carrying of coals to Newcastle, yet we hear that a contract has just been entered into between Mr. Herbert Tweddell, the proprietor of some petroleum-springs in Peru, to deliver 1,500,000 gallons monthly, during five years, to a firm at Los Angelos, California. The tract of land, twelve miles wide and ten miles long, whence this Peruvian petroleum is to be obtained, was recently purchased by Mr. Tweddell, who is one of the original operators from the oil regions of Pennsylvania. It is situated at Talara, near Payta, covering the site of some ancient oil-works and retorts, the history of which seems unknown, and surrounded by vast deposits of asphalt, which are called by the natives "pitch-mines. Mr. Tweddell has set to work sinking wells, and now has more than half-a-dozen spouting oil exactly like the famous wells in Pennsylvania. He is erecting a gigantic system of refineries, and in a few years he will have in operation the largest oil-field in the world outside of Pennsylvania. The refined kerosene manufactured by him has already appeared in large quantities in Lima and Callao, and from its cheapness and excellence it seems likely to drive the American article entirely from these markets. A few days since one shipment of 20,000 boxes was reported as arrived at Callao, and the native article is now on sale at many places in that city and Lima. The experiment of burning crude petroleum in place of coal is being tried on the locomotives of the Oroya Railroad, and, if it proves successful, it will open a considerable market for the article among the railroads. The total value of his contract with the Los Angelos firm is about 2,000,000*l*.

A CHEAP FUNNEL-JACKET.

By JOHN A. FORRET.

THE appliances in the market for keeping solutions hot while being filtered, are a water-jacket of tin or copper, and a funnel let through the ordinary water-bath. With the tin-jacket there is no means of drying it after use, which means rapid corrosion by rust, while the copper article is too expensive. The only objection I have to the water-bath jacket is the large quantity of water to be heated, when the bath is used for filtering alone.

Some time ago I devised the hot-funnel shown in section below, and find it to answer the purposes of a hot-water funnel-jacket. The funnel being in direct contact with the



A.—Tin box, round or square.
B.—Funnel.
C.—Brass tube, with collar soldered into A.
D.—I. R. tubing, stretched over funnel and fitting accurately into C
E.—Glass tube fitting tightly into D.

water, its contents are much more rapidly heated than in the case of the ordinary jacket, with its intervening tin or copper. One drawback, however, is its fixity when in use—the funnel cannot be removed without emptying the bath.

The whole thing can be put together in the back shop at the expense of a little time and patience. The one I have in use was made out of an old vaseline-tin, the brass tube being the neck of a disused spirit-lamp.

WASHING-BLUE has a rival in a blue soap, which is produced in Germany. The way in which it is made is to add a solution of aniline green in glacial acetic acid to the soap basis. The alkali of the soap changes the green to blue, and gives the soap a uniform colour.

PHOTOGRAPHIC EXHIBITION IN THE CITY.

THE exhibition instituted by the photographic section of the London Chamber of Commerce was opened with a grand *soirée*, at which the Lord Mayor and a distinguished company were present, in the hall of the Drapers' Company, lent for the purpose. Some fine examples of the artistic results of photography are to be seen in the room at the top of the staircase, and, amongst them, Waterlow & Son's exhibit of photo-mechanical work in the shape of collotypes and photogravures and zinco work, are worth noting. Collotype prints might be used by chemists for ornamenting almanacs, &c., at no great outlay. Here also are some of Frith's inimitable views of London street life, West & Son's yacht studies, and Payne Jennings's "Rambles in Devonshire" and "The Norfolk Broads." Some fine specimens of portraiture are also to be seen here. The only apparatus shown in this room is a striking case by Ross & Co., Bond Street, the most noticeable novelties being a capital photo-micrographic attachment, fitted to a superb microscopic stand, with almost every conceivable luxury of movement desirable. Another novelty is a skeleton finder, for instantaneous work with large cameras, which consists of a second camera-front rising above the ordinary one, and which carries a cheaper form of lens identical in focus with the lens of the camera, so that when the focussing-cloth is thrown over the whole there is, practically, a second camera, which enables the operator to focus with the dark slide in position, and thus follow any moving object and fire off at the desired moment. This is a convenience which will be appreciated. A new form of stereoscopic camera is also shown by this firm, in which the bellows are disconnected from the camera-front, which folds over the focussing-screen, thus forming an effectual protection to it when travelling.

In the next room, Mawson & Swan, Soho Square, make an imposing exhibit of their negative varnishes and collodions, with plates and specimens of work done on them. Their novelties are the "Giah" hand-camera, a convenient and compact magazine-camera, which allows of a rather longer focus-lens than is usual with this class of camera. A tripod with collapsible head is also a neat and useful addition to any kit, which is rigid, and yet very light. Another useful little contrivance is Payne's photo-micrographic adapter, which renders the connection of a microscope to a camera at once safe and easy. Green's cloud-negatives, Underwood's cameras, Hume's cantilever enlarging apparatus, and many of Tylar's specialities are included in the exhibit, as well as magnificent specimens of photographic chemicals, gums, and resins. Next to this exhibit is that of Wigglesworth's new "matt opal type," which comes all the way from New Zealand, and which, judging from the results exhibited, ought to add another printing process to those already in use.

In the centre of this room is a case of Perken, Son & Rayment's famous "Optimus" goods—cameras perfect in workmanship and finish: notable amongst which is their new wide-angle camera, noticed in these pages a week or two back, and the "Optimus" magazine-camera, one of the most practical of the hand-cameras yet made. Plate and print washers, and almost every conceivable requisite for practical work, are backed up by a fine exhibit of "Optimus" lenses.

George Smith, of the Sciopticon Company, shows cameras which he designates the "camera of the future," and Mrs. Smith has some ingenious arrangements of photographs inserted in fire-screens and the like. England Bros. show their celluloid films and plates; negatives taken on these, and prints from several workers, which speak well for the quality of these productions. "The Amateur's Friend," George Platt, of Alvington Crescent, Kingsland, has a case of camera-fittings and brasswork; Pearson & Denham, of Leeds, show their new reducing camera, a practical convenience worth the attention of any lantern-worker. Their new "Circumbra" camera having a conical circular bellows, which cannot cut off any portion of the view. It racks to beyond the ordinary length, and closes up into much less space than usual. Another feature is that the dark slide may be placed in any position—upright, horizontal, or cornerwise, as desired.

John Lewis & Co., Sparkbrook, Birmingham, are showing Dr. Nicholl's "Kallitype" process prints, which ought to attain some share of popularity, judging from the results and the ease with which the paper is manipulated, the process being a hybrid between bromide and platinotype papers, and yielding excellent results. They show, besides, a clockwork "automatic plate-rocker, the best contrivance yet invented," a claim which we think is justified; and a patent adjustable stand-holder, which is a small metal plate connected by cords to the tripod legs about halfway down, effectually preventing them from slipping, which can be instantly adjusted, and weighs only a few ounces. This carries out more neatly the old device of looping a bit of string at the bottom of the camera for the foot. John Thomson, of Portgordon, N.B., shows his remarkably cheap "Scotia" cameras, and a new combination rectilinear lens. Newton & Co., Fleet Street, are showing some magnificent lanterns, one of which has an ingenious cylindrical body with triple lens arrangement, made so that the body is revolved when one picture is to be taken off the screen and another thrown on. This lantern is for electric illumination. The firm shows another lantern made for the Royal Veterinary College. Iliffe & Son, publishers, Coventry, display numerous works on photography, including Mr. Andrew Pringle's "Practical Photo-Micrography"—the latest and most complete work ever written on this subject; Chapman Jones's "Introduction to the Science and Art of Photography," and all their other publications.

Swift & Son, Tottenham Court Road, have a case of their cameras, amongst which is a new "Memorandum" camera of unique design, made to take half-quarter plates. Some magnificent lenses are also shown; first among these and all lenses being their new "Portrait Paragons," made of the new Jena glass, with both combinations cemented, and working at F/4—the greatest advance made for many years in photographic optics.

In this room is a fine collection of pictures, amongst which are examples of the London Stereoscopic Company's new photomechanical process, photo-mezzotype, and also some carbon-work from the Autotype Company. W. & D. Downey, A. & H. Fry, Van der Weyde, and others exhibit excellent portraiture-work, and stands of lantern-slides by York & Son and Fincham cannot fail to attract attention. Mayall's "Tonograph" process prints are also among the novelties. Hazell, Watson & Viney (Limited) have the *Amateur Photographer* and their other photographic publications on view. F. W. Hart, 8 Kingsland Green, N.E., has a unique exhibit of his lamps and apparatus for flash-light work. Mr. Hart's arrangements are ingenious, both in regard to the lamp itself and the location of a battery of them. He attaches the magnesium holder to the lamp by means of a feeder which is controlled at will, so that the light may be either a flash or continuous for long exposures. For photographing, say, a large dinner-party, a number of lamps are used, whereby the light is equally diffused, and nice soft shadows are obtained. A connecting apparatus of ingenious design enables the light in the whole to be simultaneously produced. A bamboo stand, light, yet rigid, which Mr. Hart shows, may also be used for the lamps, and the stand can also be used as a lantern-screen, for which purpose it has several good points. G. Houghton & Son's new "Cylindograph" camera, and prints obtained by it—noticed in this journal a few weeks since—may be seen close by. One of the best things in this firm's interesting exhibit is a portmanteau for travelling photographers. This can in a few minutes be turned into a dark room, and it contains every requisite for developing. R. Abraham, Aldersgate Street, is represented by almost every requisite for photography, the firm being dealers in the specialities of all makers. R. Gotz, Buckingham Street, shows Suter's famous lenses, the "wing" shutter, Obernetter's gelatino-chloride paper, and some fine examples of iron-printing processes, useful for engineers, architects, and draughtsmen. Wm. F. Slake, Southampton Street, Camberwell, shows frames, accessories, and general photographic apparatus. Henry Park exhibits cameras and stands.

Jonathan Fallowfield, of Lambeth, relies solely on the "Facile" hand-camera, and the specimens shown are excellent, both for sharpness and perfection of finish. The camera takes a dozen quarter-plates; it is neat, compact, and weighs only 5 lbs. He also places on view his "Annual"—an encyclopædia of photographic apparatus. Walter Tylar has a brave show of lanterns.

Marion & Co., Soho Square, make the largest exhibit of anyone. Cameras, mounts, albums, accessories, lenses, papers, enlargements, hand-cameras, including McKellen's, the "Parcel," and Krugener's book-camera, and a huge 24 × 20 studio camera, of first-class workmanship and finish. Voightländer's lenses make a bright array, and a pyramid of Britannia plates attracts considerable attention. One of the most interesting things which we saw in the exhibition was a stereoscopic camera shown by Marion & Co. This is a camera and stereoscope combined; it is not a complicated apparatus, it looks just like a stereoscope, and takes excellent pictures and shows them under such conditions that one cannot fail to take an interest in them. We notice that the firm have made several improvements on their hand-camera, and have adapted a lever to their ladies' camera, so that focussing is now done with extreme rapidity and ease. Another novelty on this stand is a portable dark-room lantern with durolein instead of glass, so that there is no chance of breakage. The firm show T. H. Powell's tablets of pyro, eikonogen, and many other interesting things.

B. J. Edwards & Co., Hackney, illustrate their isochromatic, or colour-sensitive, plates, by some excellent specimens of work by the leading men of the day. It is natural to ask, What is an isochromatic plate, and what is it used for? To that we may reply that certain colours, such as orange, yellow, and green, which appear light to the eye, always appear too dark when photographed by the ordinary processes, whilst blue and violet, which appear dark to the eye, invariably come out light in the photograph. The isochromatic plates are prepared so that they are strongly sensitive to orange, yellow, and green, and sensitive in a less degree to blue and violet. The process by which this is done was discovered by Taelfer, of Paris, but has been considerably developed by B. J. Edwards & Co., and consists in incorporating a trace of a well-known red colouring matter with the emulsion. Small though the proportion of colouring matter is, it is wonderful how effectual it is in bringing out the lights which in ordinary circumstances are dark, and it has, moreover, the special advantage of giving sharpness of detail, which greatly enhances the prettiness and value of the pictures. Watson & Sons, Holborn, have an exhibit of their famous "Detective" and other cameras. H. Crouch & Son, Barbican, show a new hand-camera, which carries 24 plates in sheaths, which are brought into the focus-plane by a novel arrangement of plunger and lever.

Sands & Hunter, Cranbourne Street; Wray & Son, Highgate; and last, but not least, the London Stereoscopic Company, are also among the exhibitors. The company bring on view Carbutt's celluloid films, which, but for their absurdly high price, would find more general favour, as they can be used in an ordinary dark slide without any special arrangement, the thickness being such as to make them less liable to cockle and bend.

The exhibition seems to be well appreciated by visitors, and, as will be judged from this brief summary of it, most of the leading houses are represented. No prizes or medals are to be awarded.

POSTCARD COMPETITION.—MAY.

Pharmaceutical Society *v.* Wheeldon.—For the Defence.

THE request for outlines of an argument in opposition to the judgment delivered by Mr. Justice Hawkins in the case of the Pharmaceutical Society *v.* Wheeldon elicited a very thin response—under fifty postcards were sent in, and some of these were written (as was quite legitimate) by persons in entire sympathy with the views expressed in that judgment. This seems to us very good evidence that there is no large body of opinion remaining in the trade in opposition to the view which we all along expressed on the point raised by the case in question, and which was so emphatically supported by the Queen's Bench Division of the High Court. We imagine that the majority of qualified chemists and druggists perceive that the decision is one with which they have every reason to be satisfied, and we expect that the majority of the minority have either willingly or reluctantly acquiesced by this time in Mr. Justice Hawkins's interpretation of the law. Any way there is the fact that only a very few of our readers have thought fit to spend a quarter of an hour in framing a reply to the reasons on which the interpretation was based.

But the other side is capable of some argument, and what there is to be said is concisely put by several competitors. To print several of these in full would be needless repetition. We therefore content ourselves with the publication of the argument on the postcard which we select as the one to which the prize shall be awarded. The author is Mr. S. B. Strickland, 3 Bridge Street, Horncastle, who writes as follows:—

Against Justice Hawkins's decision I submit:—

1. That section 17 assumes that unqualified assistants will continue to sell poisons, inasmuch as it provides that "for the purpose of this section the person on whose behalf any sale is made by any apprentice or servant shall be deemed the seller."

2. That this assumption, standing without any prohibitory clause, amounts to a recognition of such sales as legal.

It may be agreed that section 15 has already declared them illegal, and this part of section 17 merely meets necessities involved in the labelling and registration of poisons. To this I reply:—

(*a*) That the other is the more natural interpretation.

(*b*) That when the wording of an Act is ambiguous, but the intention of its framers unquestionable, it should be read in the light of that intention.

3. That the twenty years' inaction of the Pharmaceutical Society (who were practically the framers of the Act of 1868) proves beyond question that they did not intend it to touch unqualified assistants. To have stopped these sales in 1869 would have been comparatively easy, for the air was charged with innovations, and this would have been but one among many.

4. That the method of recovering penalties—through County Court—proves beyond doubt that there was no intention to strike at apprentices.

For these reasons I say that the recent judgment is unwarranted by the Pharmacy Act—in fact, was not based on it at all, but on an ideal Pharmacy Act, existent only in the brain of the learned judge. If the Act of 1868 does not fulfil the intentions shadowed forth in its preamble, let Parliament alter and extend it, but let us not have any legislation from the Bench.

Mr. Strickland omits an argument which is used by several correspondents, viz., the judgment of the Court of Queen's Bench in the case of Templeman *v.* Trafford. This is, however, a double-edged weapon. There are passages in the judgments of Justices Grove and Lopes in that case which go to show that the person who kept the shop was to be regarded as the seller; but this was a case under the 17th section, and the purpose of the judgments was to show that the seller in that case was the person who conducted the business, and not the qualified person at a distance for whom it was said the unqualified dealer was acting as agent, and whose name appeared on the label.

Mr. C. C. Bell (Epworth) repeats the argument which he has already skilfully advocated in our columns, but which we cannot but regard as unsound. He says it is clear from the whole structure of the sentences in which they occur that the terms "sell or keep open shop" for selling, &c., refer to one offence variously defined.

Mr. R. F. Reynolds sends us a pictorial argument against the judgment, which we have roughly reproduced in the annexed sketch:—

Several correspondents assure us that the judge was wrong, but make no serious attempt to argue the question.

Practical Notes and Formulæ.

Filtering.

Clogging of filtering-paper can be to a large extent prevented by taking care to wet the paper with some of the clear fluid which is to be filtered, or with an innocuous liquid like it—watery liquids with water, tinctures with rectified or proof spirit, and so on. The wetting is said to prevent the solid material penetrating the paper.

Tooth-powder.

Castile soap, powdered	2 drs.
Saccharin	3 grs.
Precipitated chalk	14 drs.
Oil of wintergreen	1 drop

Triturate the chalk and saccharine well together in a mortar, then add the soap and perfume, and continue to triturate for some time.—*Druggists' Circular.*

Copal Varnish.

The *Pharmaceutische Zeitung* gives the following as a good formula :—

Manila copal	4 parts
Linseed oil	3 ,,
Turpentine a sufficiency.	

Melt the copal over the fire, then stir in the oil, mix, remove from the fire, and when the mixture has cooled down to 100° add enough turpentine to make 10 parts.

Lime-juice and Glycerine.

Benne oil	16 oz.
Lime water	24 ,,

Perfume with ½ oz. of the following mixture :—

Oil of bergamot	8 drs.
,, lemon	4 ,,
,, lavender	2 ,,
,, cloves	1 ,,

Put up in 4-oz. vials, soaking the corks for a short time in an alcoholic solution of bichloride of mercury, 1 gr. to the ounce, to prevent mould gathering on them.—*Druggists' Circular.*

Toilet-cream.

Best flake tragacanth	1¼ oz.
Clear soft water	112 ,,
Glycerine	16 ,,
Salicylic acid	60 ,,
Perfume	½ ,,

Dissolve the salicylic acid in 32 oz. of the water by the aid of heat, then put the tragacanth, glycerine, acid solution, and the remainder of the water into a 2-gallon jar, cover, and let the whole remain several days, stirring occasionally and working with the hands until a mucilage is formed as free from lumps as possible; lastly, add the perfume, and squeeze two or three times through thick muslin until perfectly smooth.

Put up in 2-oz. wide-mouth bottles. To prevent mould gathering on the corks, soak them for a short time in an alcoholic solution of bichloride of mercury 1 gr. to the ounce. This cream never gets sour nor mouldy, and is all that is to be desired in a toilet preparation of this character. No iron should be used in any part of the work, as it would stain the cream.—*Druggists' Circular.*

Castor-oil Draught.

Here is a good formula, which a correspondent of the *Registered Pharmacist* is responsible for :—

Syr. rhei arom.	℥iv.
Sodii bicarb.	gr. xv.
Acid. tartaric...	gr. v.
Aq. menth. pip.	℥iss.
Ol. ricini	q.s.

Dissolve the soda in the arom. syr. rhubarb, then add the tartaric acid, and stir well. Now pour the peppermint-water carefully down the side of the tumbler, so as not to disturb the foam, and then pour the oil through the centre of the foam, and drink.

Trade Report.

Notice to Retail Buyers :—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 Cannon Street, E.C., June 12.

The business in the drug and chemical markets during the week under review has been of a steady and not unsatisfactory character. To-day's drug auctions were lengthy, and offered a very considerable assortment of goods; but the proportion of lots disposed of was decidedly above the average, and for several articles the demand was quite brisk. The following articles may be called very firm or dearer :—Balsam of Peru, medium grades of cardamoms, kino, gamboge, kola nuts, ordinary first and third pile Tonquin musk, quassia-wood, senna, grey Jamaica sarsaparilla, and Madagascar beeswax. Jamaica beeswax was a shade lower, and the following articles are all more or less easier to buy: Cape aloes, raw camphor, copaiba balsam, dragon's blood, cuttle-fish, ipecacuanha, jalap, insect-flowers, orange-peel, fine Tonquin musk, red Jamaica sarsaparilla, and vanilla. In chemicals the market has been quiet, and we can only name quicksilver as having slightly improved in value. Carbolic acid, tartaric acid, refined camphor, and glycerine are easier. In the outside markets we have to report higher values for gambier, shellac, seedlac, sticklac, benzol, nutmegs, and Zanzibar cloves; but there has been a considerable decline in Cochin and Jamaica ginger and pimento, and China soy may also be had for somewhat less money.

Acids.—The quotations for the usual commercial varieties of *Carbolic* acid (34–35° crystals) have been reduced from 11*d.* to 10*d.* per lb., and 40° crystals are now obtainable at 11*d.* to 1*s.* per lb. These quotations do not include packing. Liquid carbolic (95 per cent.) is quoted at 1*s.* 3*d.* per gallon. *Citric* acid is flat and neglected at 1*s.* 2¾*d.* per lb. Perhaps that price might even be shaded. *Oxalic* rather scarce at 3¾*d.* per lb. *Tartaric* dull at 1*s.* 2¼*d.* to 1*s.* 2¾*d.* per lb., according to brand and position.

Aloes.—Of *Cape* aloes 103 cases were offered to-day of which about two-thirds sold with some pressure at a decline of 1*s.* per cwt., good hard bright 22*s.* 6*d.* to 23*s.*, second quality 20*s.* to 20*s.* 6*d.* and rather drossy 18*s.* to 19*s.* per cwt. *Curaçao* aloes in rather small supply and without business. A few packages soft sour flavoured *Zanzibars* sold cheaply at 37*s.* *East Indian Socotrine* fair colour but soft were quitted at 80*s.* and ordinary dry and dark in skins at 50*s.* per cwt.

Ambergris.—Fine quality still remains dear, and is worth about 180*s.* per oz. Several small lots (altogether 45 oz.), dark undeveloped, bold pieces, sold in auction at 40*s.* to 50*s.*

Anise.—*Chinese Star-anise* is still held for 120*s.*, and is exceedingly scarce. For good *Russian anise* 20*s.* is wanted, and a parcel of *Italian* sold to-day at 27*s.* per cwt.

Annatto.—In small supply, 9*d.* to 10*d.* per lb. for fair *Brazilian* roll. Of seeds only a few packages were offered, dull *West Indian* selling at 1½*d.*, while fairly good dried *East Indian* were bought in at 3½*d.* per lb.

Antimony.—*Regulus* is quoted at 73*l.* Of antimonial preparations *Tartrate* is now offering at 1*s.* 1½*d.* to 1*s.* 2*d.* per lb., according to quality.

Balsams.—*Copaiba* somewhat easier, and thick Maranham has been selling privately here at 2*s.* 4½*d.* per lb. Five casks were shown on sale to-day, and bought in at 2*s.* 5*d.*; there were no bids. *Peruvian* balsam: Very little offering; of two cases unworked shown to-day an offer of 4*s.* 6*d.* was refused, and the owner states that he will not sell under 4*s.* 9*d.*

Benzol slightly firmer at 3*s.* 10*d.* for 90-per-cent., and 2*s.* 9*d.* to 2*s.* 10*d.* for 50-per-cent.

BITTER-WATER. — Fifty cases, of 50 bottles each, *Hungarian* bitter-water, Francis Joseph spring, were offered to-day, and are held at 26*s*. per case.

BORAX.—The makers continue to quote 30*s*. per cwt. for crystals, and 31*s*. for powder, but second-hand holders are underselling them by about 1*s*. 6*d*. per cwt. There is a good inquiry for Italan *Boracic acid*, but as the producers have already made contracts for the remainder of the year for the bulk of their output, it is not easy to obtain supplies. The present quotation for crude acid, of not more than 18 per cent. impurity, is 23*s*. 6*d*. f.o.b. Leghorn.

BUCHU.—Still very scarce, the only lot offering to-day was a parcel of *Long* leaves, very dull colour, but good flavour, for which 6½*d*. per lb. was suggested as the price.

CALABAR BEANS.—The arrivals still continue, and prices consequently maintain their downward tendency.

CALUMBA.—Nearly 300 packages were included in to-day's sales, and the bulk of this was disposed of at irregular prices, a parcel of small bright washed root, slightly wormy, selling very cheaply indeed at 15*s*. per cwt., but several lots offered "without reserve," realising full prices; good yellow, slightly dark mixed, 17*s*. 6*d*. to 20*s*.; medium, at 11*s*. to 15*s*.; and ordinary packings, at 5*s*. per cwt. For good bright washed root 30*s*. per cwt. would be accepted.

CAMPHOR (CRUDE).—The market has been very quiet this week, and quotations are practically nominal. At to-day's auctions 50 tubs Japan camphor of recent import were sold to a broker at 7*l*. 10*s*. per cwt., which would show a decline of 10*s*. on the nominal quotation of a week ago. The weight of the 2,555 tubs imported per *Flintshire* last week, assuming the packages to have been of the normal weight, was not 500 tons, but between 200 and 280 tons.

CAMPHOR (REFINED).—There is no change in the quotations for *English* camphor. For *German* the spot quotation is about 1*s*. 8*d*. per lb., but we do not hear of much business.

CANTHARIDES.—*Russian*: quiet and offering, according to quality, at 3*s*. 6*d*. to 4*s*. c.i.f. terms. Of *Chinese* cantharides, one parcel shown to-day was bought in, and is said to be had for 1*s*. 3*d*. per lb.; and 11 cases, very wormy, sold without reserve at 10*d*. per lb., which is rather a good price.

CARDAMOMS.— The supplies offered at to-day's auctions were moderate in extent and well competed for, the greater part selling at steady prices, especially for medium qualities. *Mysore*, fine, bold, pale, 3*s*. 4*d*.; smaller size, 2*s*. to 2*s*. 1*d*.; medium to bold round yellow, 1*s*. 10*d*. to 1*s*. 11*d*.; small pale round, 1*s*. 8*d*.; medium to bold pale long, 1*s*. 9*d*.; medium brownish, 1*s*. 5*d*. to 1*s*. 6*d*.; small long pale and yellow, 11*d*. to 1*s*. per lb. *Malabar*, medium brown, lean, 1*s*. 3*d*.; small, 1*s*.; small to medium, brown and specky, 1*s*.; broken, split, and specky, 10*d*.: medium size, but dull and brown, 10*d*. to 10½*d*. per lb. *Seeds* sold at 1*s*. 5*d*. to 1*s*. 6*d*. per lb.

CASCARILLA.—29 bales offered to-day found ready buyers at 37*s*. 6*d*. for good bright silvery quill, 30*s*. for smaller ditto, and from 24*s*. down to 21*s*. for small wiry.

CINCHONA.—The supply of South American barks offered excited no interest whatever. Several lots of *Guayaquil* bark were bought in, the price being 1*s*. 11*d*. per lb. for fine long thin grey quill, and 1*s*. 4*d*. to 1*s*. 6*d*. per lb. for good broken mossy. Several lots of flat *Yellow* bark, partly of spurious character, were bought in at nominal rates. Our imports from all quarters during the week have been 1,249 packages. The following figures refer to our imports and exports of "Peruvian bark" as disclosed by the Board of Trade returns for May:—

	1888	1889	1890
	Cwts.	Cwts.	Cwts.
Imports in May	18,906	11,244	8,830
Exports „	18,526	19,369	33,797
Imports, January 1 to May 31	66,237	72,321	53,080
Exports „ „	46,144	54,265	49,526

With regard to last week's auctions in Amsterdam it appears that the total quantity offered was 3,878 packages, of which 3,077 were sold at a unit of 8 to 8¼ cents, while 801 were bought in at an equivalent of 8½ to 9 cents per unit, which was not obtainable. The assortment of pharmaceutical barks was very small (61,608 kilos.), and all of it found buyers at irregular, but generally very satisfactory prices A parcel of 11 cases *Ledgeriana*, in fine mossed broken quills, equal to 9 42 per cent. sulphate of quinine, sold at 1*s*. to 1*s*. 0½*d*. per lb.

CLOVES.—*Zanzibar* cloves are considerably dearer, but this is mainly owing to speculation. Heavy sales had been made, which are now fallen due, and prices are being driven up in order to put the sellers into a corner. At the auctions only 80 bales sold; fair to fine bright at 6¼*d*. to 6½*d*; for delivery, June to November, 6⅛*d*. to 6¼*d*. has been paid.

COCA LEAVES.—The production of coca in Java appears to be increasing, for we notice the arrivals this week amounted together to 56 cases. At the auctions 13 bales South American *Truxillo*, very broken, but good bright leaves, were bought in cheaply at 9*d*. per lb.

COLOCYNTH.—Good pale seedy mixed *Turkey* apple is still being sold at 1*s*. 2*d*. per lb.

COPPER (SULPHATE).—The spot price ranges from 23*l*. 15*s*. to 24*l*. 15*s*., according to quality. August—September is offering at 20*l*. per ton.

CORIANDER SEED in steady demand, at 12*s*. per cwt. with moderate stocks.

COWHAGE.—Our stock must be getting very large, for fresh parcels are being offered in all directions. Of several lots shown to-day two cases sold cheaply at 4*d*. per lb. for fine pale quality, not stony but rather seedy.

CREAM OF TARTAR.—Firmly held at 101*s*. 6*d*. to 102*s*. for best white French crystals.

CUBEBS. — There is no demand for this article and a further decline in prices is generally looked for. For 15 bags small shrivelled genuine berries, but very stalky, 23*l*. 10*s*. per cwt. is asked, and another parcel direct import from Java mixed size, cultivated berries, no stalks, was bought in at 23*l*.

CUMIN SEED.—Fair *Malta* continues to sell slowly at 24*s*. to 25*s*. per cwt.

CUTTLE-FISH sold at fully ½*d*. decline to-day; 67 cases from Bombay, small to bold good pale colour, but slightly damp, bring 3*d*. to 3½*d*. per lb.; another parcel was bought in at 6*d*. per lb. nominally.

DRAGON'S BLOOD.—Several cases sold to-day at a decline of 5*s*. to 10*s*. per cwt., fair bold finger, in seed, at 95*s*., bricky and broken ditto 82*s*. 6*d*., and very common bricky lump at 39*s*. per cwt. There was an arrival of 56 cases from Singapore this week.

ERGOT OF RYE slow of sale. At the auction, only four bags damp and wormy *Spanish* sold at 1*s*. 1½*d*. to 1*s*. 2*d*. per lb. *Russian* is offering at 1*s*. per lb. c.i.f. terms. *rgotine* (Bonjean) is quoted at 9*s*. per lb.

EUPHORBIA PILULIFERA.—The parcel recently landed from *Australia* was offered to-day, and turned out to be a bag of 3 cwt. very stalky but bright colour. the only offer made for it was 6*d*. per lb., which was not entertained. One case fair *East Indian* herb was bought in at 2*s*. per lb.

FENUGREEK SEED.—About 230 bags *Mogadore* were bought in to-day, the nearest price being apparently 6*s*. 3*d*.

GAMBIER.—Rather dearer for *block*, both on the spot and for arrival, but there has not been very much business this week. A few spot parcels have changed hands at 28*s*.

GAMBOGE.—The demand remains very good, and although several lots were shown to-day, nearly all of them found ready buyers at an advance of about 5*s*.; good selected loose pipe, 13*l*. 10*s*.; good pipe of bright fracture and very little dross, 11*l*. 17*s*. 6*d*. (a cheap lot); rather dull loose and run pipe, partly ricey, 10*l*. to 10*l*. 15*s*.; good ricey mixed pickings to common damp and discoloured, from 9*l*. 12*s*. 6*d*. down to 9*l*. 5*s*.

GINGER.—The new crop *Jamaica* is still coming in, and a large quantity (over 1,000 packages) was offered at this week's auctions: less than half this sold, partly in sale and partly immediately after, at a decline of from 5*s*. to 10*s*. per cwt.; pale to medium bleached, 78*s*. to 88*s*. 6*d*.; fair bright, medium to bold, 90*s*. to 107*s*. 6*d*.; very fine selected bold, 122*s*. 6*d*. to 140*s*. *Cochin* also lower, but only very little

sold; cuttings, 16*s.* 6*d.* to 18*s.*; half-cut, small to bold, 32*s.* to 42*s.*; ordinary small cut, 30*s.* 6*d.*; fine bold picked, 86*s.*

GLYCERINE.—The market remains dull, and it would be possible, we think, to buy double distilled S. G. 1,260 at 61*s.* per cwt. from second-hand holders. Messrs. Böhringer and Sons say:—"Since its emancipation from the tallow market, the movements of glycerine have become even more difficult to anticipate than before. For some months past crude glycerine has been controlled by speculators, who bought up the production of nearly all the manufacturers. It remains to be seen whether they will be able to hold their position during the slack season. Meanwhile, holders of crude glycerine show no disposition to enter into contracts for forward delivery at the recent decline."

GUM AMMONIACUM.—Good woody is exceedingly scarce, six cases of very fine clean white selected drop, but deficient in flavour, were offered to-day and bought in at the nominal price of 130*s* per cwt, the last quotation for good clear drop being from 50*s.* to 60*s.* Two cases small pale grain, mixed with earth, were bought in at 25*s.* nominally.

GUM ARABIC.—The only parcels of interest offered to-day consisted of fine quality *Cape*, of which the greater part sold; fine pale glassy sorts are held for 7*l.* 5*s.*; fine small friable drop sold at 90*s.* to 102*s.* 6*d.*; pale best dusty sorts, 61*s.* to 74*s.*; fine pale siftings, 52*s.* to 53*s.*; and very common brown at 12*s.* For fine pale and amber *Aden* sorts the price is 5*l.*, and this variety is scarce.

GUM ASAFŒTIDA.—Another case of the same variety to which we have referred recently was included in to-day's sales under the name of "Ammoniacum"; it consisted of very woody and seedy pickings, and was bought in without mention of price.

GUM BENZOIN.—Very dull of sale. *Sumatra* gum all bought in; fine bright almondy seconds, of excellent flavour, are held for 9*l.* *Penang*: Ordinary grey, with white almondy centres, sold cheaply at 90*s.* Several lots of common resin brought from 6*s.* down to 3*s.* per cwt.

GUM GUAIACUM.—Four boxes of good bright lumps, mixed with a few almonds, sold at 1*s.* 4*d.* per lb, cheaply.

GUM KINO.—Higher prices have been paid privately, and at the auction an offer of 32*s.* was refused for 11 boxes, for which 35*s.* is required.

GUM MYRRH.—Good selected gum sold at 6*l.* 10*s.* to-day Several lots of Aden sorts and siftings were offered, but there was very little demand, and they were nearly all bought in.

HONEY.—*Jamaica* honey continues to realise full prices, and 31 kegs sold readily at 35*s.* to 38*s.* for grey candied of good flavour; and 32*s.* 6*d.* for rather dark; up to 36*s.* per cwt. for good bright liquid honey.

INSECT-FLOWERS.—The new crop is now arriving in Trieste, though as yet the flowers are not sufficiently dry for shipment. Prices are rather easier, viz., 95*s.* per cwt. f.o.b. for closed, and 65*s.* 6*d.* per cwt. for open flowers.

IPECACUANHA.—Sixty-two packages were included in to-day's sales and the prospect seemed altogether in favour of a considerable decline. The first few bales showed a fall of 4*d.* per lb., but subsequently the market improved, and we do not place the average reduction in value at more than 2*d.* to 3*d* per lb. There is an idea that the two houses who practically control the supply may agree to stand out for higher rates than those paid to-day. Sound root, very wiry and lean to good annulated sold at 6*s.* 1*d.* up to 6*s.* 5*d.*, damaged at 6*s.* to 6*s.* 5*d.* per lb. Seventy-three lbs. of *East Indian* ipecac (Johore plantations) very fine bold stout root, but not well cured, sold a bargain at 5*s.* 11*d.* to 6*s.* 2*d.* per lb.

JALAP.—A decline of fully 3*d.* per lb. occurred at to-day's auctions when 3 bales *Vera Cruz* tubers, mixed with root-stalks, but showing a good resiny surface, sold with difficulty at 1*s.* 2*d.* per lb. It then transpired that there are another 34 bales of this variety, for which the owners would like to take 1*s.* 2*d.* also, but that quantity frightened the buyers off altogether.

KAMALA.—Several lots were shown to day, but the demand remains slack. The price for good reddish is 10*d.* per lb.

KOLA NUTS dearer; about half a ton of air-dry seeds selling with good competition at 10*d.* to 11½*d.* per lb.

LIQUORICE.—Fifty cases from Naples, "CC Lungo" brand, are held for 60*s.* per cwt., an offer of 45*s.* being refused.

MUSK.—After the prolonged dulness of the market the brisk demand shown at to-day's auctions came somewhat as a surprise. Of *Tonquin* pod musk 40 caddies were offered, and 32 of these sold at an improvement of about 1*s.* 6*d.* to 2*s.* per oz. on ordinary pile I. and pile III. The best pile I., on the other hand, was slightly lower in value. The following prices were realised: *First pile*, good shaped pods, thin skin and underskin, medium to bold, 70*s.*; dry pods, rather skinny, old-fashioned shape, 60*s.* 6*d.*; good medium to very bold pods, top and underskin well trimmed, 57*s.* 6*d.*; medium to bold pods, rather damp and unsightly, 53*s.* to 55*s.* per oz. For a parcel of medium to bold pods, thin blue skin, dry and well trimmed, 83*s.* was refused. *Second pile*, very skinny, 33*s.* per oz. *Third pile*, fine blue skin, rather bold dry pods, 58*s.* 6*d.*; part blue skin, but broken and damp, 44*s.* 6*d.*; medium to bold top and underskin, part badly trimmed, 30*s.* 6*d.*; ordinary rough badly trimmed, 26*s.* to 26*s.* 6*d.* per oz.

NUX VOMICA.—The market remains very firm, and at to-day's auctions 600 bags from Madras sold at full prices; medium, partly dull, fairly silky, at 9*s.* 6*d.* to 10*s.*, and a rather better lot at 9*s.* 6*d* per cwt. The arrivals still continue to come in on a fairly extensive scale.

OIL (CASTOR).—*Calcutta* oil is very firmly held at 4½*d.* per lb., the price in Liverpool being 4¼*d.* per lb., with little offering. Thirty cases firsts shown to-day are held for 4¾*d.* per lb. Fine medicinal *Italian* oil is now quoted up to 44*s.* 6*d.* per cwt. c.i f. terms. The reports from India still speak of advancing prices and inability of the oil crushers to deliver up to contract.

OIL (COD-LIVER).—Non-congealing new *Norwegian* is being offered at 52*s.* 6*d.* per barrel ex ship. At to-day's auction 10 casks of fair quality sold cheaply at 44*s.*

OIL (OLIVE).—At to-day's auctions three hogsheads Lucca oil were offered at 6*s.* per gallon. Fine oil, cream to extra cream, is quitted at 64*l.* to 71*l.* per ton, c.i.f. terms. In Leghorn the market is very firm, and it is thought likely that prices may advance considerably, owing to the reduction of the stock and the unfavourable crop prospects.

OILS (ESSENTIAL).—Sicilian essential oils are firm and still tending upwards; for *Bergamot* from 10*s.* 3*d.* to 10*s.* 10*d.* per lb. f.o.b. is now quoted. Fischer's *Patchouly* oil is quoted at 1*s.* 4*d.* per oz., and the same brand of *Citronella* at 1⅜*d.* per oz. With regard to French essential oils we hear that the products of the orange trees—neroli, pommades, and orange-flower water—are likely to be scarce and somewhat dearer. *Roses* are likely to be cheap, and the cultivation has much increased.

ORANGE-PEEL.—Lower, several parcels being pressed for sale to-day, and quitted at 5*d.* up to 7½*d.* for good to fine bright gelatine. Eleven bags brown quarters sold at ½*d.* per lb.

ORRIS ROOT.—The only supplies now procurable in Italy are from second-hand holders, who ask fancy prices. At to-day's auctions a small parcel of fairly good pale *Italian* root was sold at 65*s.* per cwt., and six serons small dull brown Mogadore were bought in at 28*s.* per cwt.

PETROLEUM JELLY.—This still continues to be offered by auction in small lots, and the prices asked are the same as last obtained, namely, 69*s.* for white refined; and 23*s.* for fair pale.

QUASSIA-WOOD firmer. At to-day's auction several parcels were shown, but none sold. The price for good logs of new import is said to be 7*l.* 10*s.*, and we hear that some old logs have been sold at that price, although 7*l.* is also quoted.

QUICKSILVER.—The following figures refer to the imports and exports of quicksilver from this country as shown by the Board of Trade returns:

	1888 lbs.	1889 lbs.	1890 lbs.
Imports in May ..	317,724	139,252	934 631
Exports ,, ..	893,692	472,420	662,360
Imports Jan. 1—May 31	3,617,837	2,765,781	3,570,744
Exports ,, ,,	1,670,200	2,383,079	2,078,494

The market is rather firmer, and seconds have sold to-day at 10*l.* 2*s.* 6*d* ; the importers still quote 10*l.* 5*s.*

QUININE.—The market has been stagnant this week, and there are sellers of the usual speculative German brands at 1*s.* 1*d.* on the spot, and 1*s.* 1½*d.* for delivery towards the end of the year to any buyers. The only sale that we have heard of during the week has been of 5,000 oz. at 1*s.* 1*d.*, spot. *Sulphate of Quinidine* is becoming scarce, and the manufacturers are talking of increasing their quotation. German is now held for 1*s.* 8*d.* per oz.

RHUBARB.—Eighty-nine cases were offered to-day, and of these 33 sold at very steady prices. *Shensi*, round, very fine bright coat and fracture, 3*s.* 2*d.*; medium to bold, pale coat and pinky fracture, 2*s.* 2*d.* to 2*s.* 4*d.*; flat ditto, 1*s.* 9*d.* to 1*s.* 10*d.* ; round, small to medium, fair coat, half pinky fracture to very wormy, 8*d.* to 8½*d.* *Canton*: small to flat, good bright coat, three-fourths pinky, 1*s.* 5½*d.*; high-dried, dull coat, half dark fracture and slightly wormy, flat at 11*d.* per lb.

SARSAPARILLA.—Red *Jamaica* sold at 1*d.* to 2*d.* decline, 1*s.* 2*d.* for sound, and 1*s.* 1*d.* for damaged ; grey *Jamaica*, on the other hand, is full up to 1*d.* dearer : sound, 1*s.* 4*d.* to 1*s.* 5*d.*; damages at from 1*s.* 4*d.* down to 11*d.*; rough *Lima Jamaica*, sea-damaged, sold at 6½*d.* to 7½*d.*; and ordinary very coarse damaged *Guaiaquil* at 6*d.* per lb.

SEEDLAC is dearer in price, good bright red having recently sold up to 60*s.* per cwt., while a parcel of very fine dry pale lac brought 82*s.* per cwt.

SENNA.—Of about 200 packages Tinnevelly included in the sales, only about a fourth part sold at slightly dearer prices ; good medium green leaf at 6*d.*; ordinary yellow and greenish specky, and partly false packed, of which the bulk consisted, at 1¼*d.* up to 2½*d.* Some *Alexandrian* senna, good small green leaf, sold cheaply at 9*d.* per lb.

SHELLAC.—At this week's auctions only 566 cases were offered, and witha very good demand over 400 sold at 3*s.* to 4*s.* advance on *Orange*, 1*s.* on *Garnet*, and 2*s.* to 3*s.* on *Button* lac. Second orange brought 85*s.* to 88*s.* for fair reddish to good pale worked, 91*s.* for fine pale unworked, 80*s.* to 85*s.* for ordinary weak livery to fair ditto. Good face AC *Garnet* sold at 82*s.* for worked, and 80*s.* for unworked. Fine bright first *Button*, 107*s.* 6*d.* to 110*s.*; ordinary third, 85*s.* per cwt. Since the auctions about 2,000 cases have changed hands for delivery, at first at higher rates, but closing rather easier, the following being the prices at the call to-day :—

	June	July	Aug.	Sept.	Oct.
Orange TN, sellers	87/6	300 at	200 at	89/	88/6
„ buyers	83/	87/	87/	87/	87/6
Garnet AC, sellers	83/	83/	83/	—	—
„ buyers	79,6	80/	80,6	—	—

SOY very quiet on the spot, with sellers of fair China at 1*s.* 3*d.* per gallon. For arrival 1*s.* 2¾*d.* per gallon has been accepted. A parcel of 39 casks *China* was sold to-day without reserve at 1*s.* 2*d.* per gallon.

STICKLAC is dearer, and 70*s.* per cwt. has been paid for good *Siam* free from wood.

TEA.—The Congou market remains quiet, and good first-crop Moning from 5*d.* to 6*d.* shows a slight decline, wonderful value being obtainable at these prices, specially noteworthy being a large chop of pure Pekoe Flavoured Onfa sold on Tuesday at 6*d.* per lb. Teas such as this are invaluable for blending purposes, and large retailers can hardly buy too many of them, as they are certain to be wanted within the next few months, and form a splendid foundation for low-priced blends. N.S. Newmakes are in larger supply, and selling at reduced rates, some of the 8*d.* to 9*d.* kinds being now within the reach of the ordinary retailer, and good useful teas. Scented teas and greens are quiet, but steady, with very moderate supplies, scented-tea buyers being anxious to clear out their stocks before the arrival of new scented tea about July 1. *Assams* keep very dear, Pekoe Souchongs, with any pretence to liquor, fetching 8*d.* to 8½*d.*, and Pekoes 9*d.* to 9½*d.*, while all the firmer grades are in strong demand. *Ceylons* are firm, in sympathy with Assams, though for once better value may be had in the lower grades of leaf Ceylon than Assam. Ceylon Pekoes, from 10*d.* to 1*s.* 1*d.*, are, however, splendid value, and pure self-drinking teas at these prices are worth attention.

TONQUIN BEANS.—*Parà*: Very firm, two packages fair black sold at 4*s.* 6*d.* to-day ; and rather foxey and soft at 4*s.*

VANILLA.—A very large supply was offered to-day and met with a slow demand, although with some difficulty the greater part was sold at from 2*s.* 3*d.* to 3*s.* decline ; fine, 8 to 9 inches, at 20*s.* ; 7½ to 8½, at 15*s.* 6*d.* to 18*s.*; 7 to 8, at 12*s.* 6*d.* to 15*s.*, and fair to good, mixed sized, at 8*s.* 6*d.* to 12*s.*

WAX (BEES')—A very large quantity of *Madagascar* wax (1,229 packages) was all sold, and, in spite of this heavy supply, prices were fully 5*s.* dearer. Fine bright pale sold at 5*l.* 12*s.* 6*d.*, good yellow slightly wormy 5*l.* 5*s.* to 5*l.* 10*s.*, and fair chocolate 5*l.* to 5*l.* 2*s.* 6*d.* A parcel of fine yellow *Cape* wax brought 6*l.* 5*s.* *Jamaica* wax, in fair supply, sold in the auction at about 5*s.* lower, but we understand that this decline has since been recovered by private sales ; good red and orange brought 6*l.* 5*s.* to 6*l.* 10*s.*, rather darker 6*l.* to 6*l.* 2*s.* 6*d*, and ordinary brown 5*l.* One case of *French* beeswax in brown coloured bars sold at 6*l.*

CHEMICALS IN THE NORTH OF ENGLAND.

THE MARKET FOR HEAVY CHEMICALS has been quiet during the past week, with little business doing, and that principally for prompt delivery.

The exports of chemicals from the Tyne for the past month show a heavy falling off as compared with the corresponding month of last year. Caustic soda has not hitherto been recorded separately, being formerly included under the heading of "other chemicals" :—

—	May, 1889	May, 1890
	Tons	Tons
Alkali and soda ash	1,349	1,582
Bicarbonate of soda	10	8
Bleaching-powder..	2,141	2,317
Manure	67	622
Soda crystals	2,595	1,511
Sulphate of soda	7	53
Caustic soda..	—	1,240
Other chemicals	3,766	1,183
Total tons	9,933	8,516

BICARBONATE OF SODA unchanged, but price firm at 5*l.* 15*s.* per ton, less 2½ per cent. discount, in 1-cwt. kegs, f.o.b. Liverpool, with proportionate prices for larger packages.

BLEACHING-POWDER is decidedly flat, and prices easier at all the centres of manufacture. For prompt delivery 4*l.* 17*s.* 6*d.* per ton, in softwood casks, on rails, and 5*l.* 2*s.* 6*d.* to 5*l.* 5*s.* per ton, in hardwood casks, f.o.b. Liverpool, less 2½ per cent. discount, with some sales at similar rates for forward delivery; 4*l.* 17*s.* 6*d.* per ton, in softwood, f.o.r. Glasgow; 4*l.* 17*s.* 6*d.* for softwood and 5*l.* to 5*l.* 2*s.* 6*d.* per ton, in hardwood casks, f.o.r. or f.o.b. Tyne ; possibly less for some brands ; 5*l.* 7*s.* 6*d.* per ton for softwood casks, ex ship Thames.

CAUSTIC SODA.—Present stocks very small, and little available for immediate delivery, but offered more freely for forward. White 60-per-cent. 7*l.* 2*s.* 6*d.* per ton ; 70-per-cent. 8*l.* to 8*l.* 5*s.* per ton ; 74-per-cent. 8*l.* 12*s.* 6*d.* per ton, less 2½ per cent. discount, f.o.b. Liverpool ; Newcastle, 77-per-cent., 9*l.* per ton, for solid in drums, and 12*l.* per ton for ground in barrels 3 to 4 cwt. each, f.o.b. Tyne, nett cash. Market very steady.

CREAM CAUSTIC quiet at 6*l.* 12*s.* 6*d.* per ton on rails and 6*l.* 17*s.* 6*d.* per ton, less 2½ per cent. discount f.o.b. Liverpool.

CHLORATE OF POTASH continues firm at prices ranging from 4½*d.* to 4⅝*d.* per lb. less 5 per cent. discount at Liverpool, Glasgow and Newcastle.

HYPOSULPHITE OF SODA is moving off very freely, the demand for both home and foreign consumption being very

heavy. Quotations are 5*l.* 5*s.* per ton in 5-7-cwt. casks and 5*l.* 15*s.* per ton in 1-cwt. kegs f.o.b. Tyne or f.o.r., and 6*l.* per ton for casks and 6*l.* 10*s.* per ton for kegs for Manchester and Liverpool, all less 2½ per cent. discount.

SODA ASH is easier in price. Liverpool *Carbonated* 1⅜*d.* to 1½*d.* per degree, and *Caustic* 1¼*d.* to 1⅜*d.* per degree f.o.b. less 2½ per cent. Packed in strong export barrels of 3-4-cwts. each, the price is 1⅝*d.* per degree f.o.b. Newcastle *Carbonated* ash quoted 1¼*d.* per degree, less 4 to 5 per cent. discount, f.o.b. Tyne.

SODA CRYSTALS are in good demand and firm at 2*l.* 15*s.* to 3*l.* per ton on rails, and 3*l.* to 3*l.* 5*s.* per ton packed in 3-cwt. barrels net weight f.o.b. Liverpool. Tyne market is again easier; 2*l.* 11*s.* per ton for cash, gross weight, 2*l.* 11*s.* per ton, packed in 2-cwt. bags, nett weight, and 2*l.* 13*s.* 6*d.* per ton, packed in 1-cwt. bags, nett weight f.o.b.; 2*l.* 17*s.* 6*d.* to 2*l.* 18*s.* per ton in casks, gross weight, ex ship Thames.

SULPHATE OF COPPER, for prompt, quoted 24*l.* 10*s.* per ton, less 5 per cent. discount, f.o.b. Liverpool. Market quiet, with a few inquiries for export. Some transactions at 21*l.* to 22*l.* for early next year.

THE GERMAN MARKETS.

HAMBURG, June 10.

THE trade in our drug and chemical markets during the past week has been limited to merely quantities required for immediate consumption. The position generally remains very quiet, and prices are mostly in favour of buyers. The following are the principal arrivals of drugs which we have received lately:—From the W. C. Africa, ex *Winnebah*, 10,656 bags and 185 tons palm kernels; from Bombay, ex *Roma*, 1,000 cases cutch, and 3,534 bags of various seeds; from the W. C. America, ex *Virgilia*, 41 cases Peruvian balsam; from Norway, ex *Fordenskjold*, 116 casks, and 119 barrels cod-liver oil, and ex *Olaf Trygveson*, 489 barrels cod-liver oil.

ANTIMONY (CRUDE, JAPAN).—Considerable quantities for forward delivery have been taken out of the market at advancing prices. The quotations now are, spot 92½m., forward 87m.

AGAR AGAR.—Fine quality has realised 2.40m. The price for Japan is telegraphed as 2.75m.

BALSAMS—*Copaiba* easier; New York reports lower values. *Peruvian* offering rather more freely but held for 8¼m. genuine quality.

CINCHONA—About 600 packages *Porto Cabello* which had been offering are now held for more money by the owners, and best quality is scarcely obtainable under 125m. There is rather more inquiry for this article.

QUILLAIA.—The recent arrivals have gone over into consumption at very low prices, 32 to 33m. is quoted now.

CAMPHOR (REFINED).—Without important business. It would probably be possible to buy at 3.20m. to 3.30m.

ASPHALTUM.—The prices are now so low that some operators have begun to take an interest in *Syrian* asphaltum, and all the parcels of this variety which were offering have been taken out of the market.

GUM ELEMI.—Fine white *Manilla* gum remains exceedingly scarce. We are expecting arrivals, but the high price of 105m. is asked for these.

JALAP.—Prices are well maintained, and good heavy tubers are scarcely to be had under 265m.

OILS (ESSENTIAL).—*Star-anise* rather easier at 13½m. *American peppermint*, H.G.H., is unchanged here at 10⅞m. to 11m. per English lb. From New York there are reports of higher prices. *Japanese peppermint* offering, according to quality, at 7½m. to 9m. *Menthol* firmly held at 15½m. to 16m.

QUININE dull, and without business. The usual brands may be had at 38m.

SANTONIN.—*Russian* manufacturers have now at last fixed their lowest price definitely at 12m.

TAMARINDS.—The finest black *Calcutta* have been dealt in at 21m.; lower qualities, however, may be had at 15m. to 16m.

WAX.—*Japan* rather firmer. *Carnauba* also dearer; yellow, 115m. to 120m.; grey, 92m. to 93m.

NOTES ON DRUGS FROM SINGAPORE.

IN the annual report issued by the director of the Botanical Gardens at Singapore, some notes are devoted to the cultivation of medicinal plants in the Straits Settlements. Several plants common or easily cultivable in that district are now in some request as medicines. Among them is *Euphorbia pilulifera*, known among the natives as Kroma Susu. The young leaves gathered before flowering are dried, and the extract is used for asthma, bronchitis, &c. The plant is exceedingly common as a weed in waste grounds and other spots. During the year one cultivator has sent a supply home, but no report has as yet been received by him as to the value of the sample.

In the experimental garden at Bukit, in Malacca, also, Euphorbia plants received from Singapore have grown well, and the drug has also been found wild near Bukit Bruang.

Of camphor a small stock of plants has been raised from seeds received from Hong-Kong in February, 1889.

Cloves are growing vigorously: most of the seedlings planted eighteen months ago are now five feet high, and very healthy. Two trees which were in the Gardens when transferred have fruited, and it is evident that they might be profitably cultivated here.

Castor-oil seeds received from Calcutta have grown well and fruited freely, and a stock is now being raised for more extensive planting.

Gambier is one of the most important products of Singapore, but although it still maintains its high price, there are many complaints from England that the imported article is heavily adulterated with water. In order to trace the origin of this excess, samples taken from the field, fresh from the boiling-shed, were sent to Mr. Evans, of Bristol, whose analysis, with that as compared with a sample of block-gambier received by him in the ordinary course of trade, was as follows:—Gambier from the field: Tannin, 11·48 per cent.; organic matter, 30·11 per cent.; water, 53·39 per cent.; ash, 4·46 per cent.; loss, 0·56 per cent. Trade gambier: Tannin, 14·68 per cent.; organic matter, 42·26 per cent.; water, 31·89 per cent.; ash, 6·34 per cent.; loss, 4·48 per cent. This result shows that there is actually less water in the trade article than in the gambier taken directly from the coolies' hands, and negatives the suggestion that the town *towkay* adulterates the gambier after receiving it in Singapore with water to make it heavier. The other suggestion that the gambier has deteriorated of late years from insufficient inspissation, owing to less fuel being used in boiling, seems more probable. In earlier years, when there was no attempt made to protect the forests the destruction of firing was very large, and fuel could be had in large quantities. Now the results of wasteful destruction are being felt, firewood is becoming more expensive and difficult to get, and the gambier is insufficiently boiled and dried. Persons interested in the trade recently conceived the idea of forming a company in Singapore to cultivate gambier on a large scale, but this has fallen through, and there is an idea that this product may be cultivated more profitably—*i.e.*, with European labour—in others of our colonies. Consequently, most botanical establishments have applied to the Singapore Gardens for seeds or young plants, and a large quantity of seed was carefully collected, dried, and distributed widely, but, as far as has yet been heard, the experiments with it have failed entirely. It seems now certain that gambier seed has a very short duration of life (the Chinese say only 24 hours)—that is, it must be sown as soon as ripe. Thus all attempts to send seed to distant colonies must prove futile. Unfortunately, too, young plants are very bad travellers, and though many have been sent out to different establishments, few appear to survive the voyage. More plants, in as healthy as possible a condition, are now to be sent out to various colonies where gambier is likely to thrive.

Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters queries, &c., will be attended to in the order received.

A Little Assistance is Asked for Dr. Warburg.

SIR,—Every chemist and druggist in England knows of and makes up "Warburg's tincture," but I am sure very few of them know that the inventor of this well-known and invaluable formula is living at the close of his long life (he is now eighty-six) in great poverty. He has two widowed daughters, both with children to support. I came across one of these poor women very nearly starving, her children both ill, and her father quite unable to help her, owing to his own poverty. Now, sir, I venture to think that your paper, reaching as it does those who have benefited, some more, some less, by Dr. Warburg's public-spirited action in making known his formula, will find amongst them some who will be inclined to subscribe towards a fund which Surgeon-General Maclean and I have raised for this old man. We do not want to make him rich; we do not want to lessen the duty of his two daughters to help support him, though, Heaven knows! women can earn little enough. But we want to ensure to the old man a comfortable end to his life, and to free him from the gnawing anxiety of not knowing from day to day where to look for the ordinary necessities of life. The Government gave him 200*l.* in 1882 in recognition of the great value of his invention, but that is all the public recognition he has had.

I know that I am appealing to a very generous body of men through your paper, and I will undertake, if I get too much, to return a due proportion to each donor; but I own this is a contingency which does not often happen. I propose with the money already received to allow Dr. Warburg for the rest of his life 15*s.* a week, and, if he dies before this is exhausted, to spend the balance for the benefit of his family. I have 100*l.* I should like to be able to give him 1*l.* 10*s.* per week, which would cover all incidental expenses of illness to himself or his family.

Your obedient servant,

44 Bryanston Square, W. SYDNEY HOLLAND.

[The Honourable Sydney Holland, whose letter we print above, is introduced to us by Messrs. Burroughs, Wellcome & Co., whom he had informed of the fund he was collecting, and who had contributed a guinea to it. We have pleasure in sending a guinea also, and hope Mr. Holland will be able to carry his benevolent desires into effect.—ED.]

Wholesale Charges for Bottles.

SIR,—In reply to the letter of "Borax" *re* the charges of the wholesale houses for their bottles, he quite overlooks the expense and trouble they are put to in getting the empties clean. The few that are broken by chemists (and therefore never returned) certainly do not more than cover the expense of cleaning, if they do that; and, considering the state empties are sent back in, I cannot blame wholesale houses for sticking on the price a little. I may also add that all wholesale houses that I ever had to do with allow in full for all empties. Yours truly,

June 7. JOHN SMITH.

SIR,—"Borax" last week opened the question of empties; I will enlarge upon it. Any house may have the right to charge 2*s.* 6*d.* for a box worth 3*d.*, but they have no right to allow 1*s.* or 1*s.* 6*d.* only for it, as they often do, as I can indisputably prove. This is done by some of the otherwise first-class London houses. I am sure they do not do it as fraud. It is carelessness and a rotten system—or, rather, no system at all. I found I often did not get proper credit, so I began my system, which was, to copy into a book off each invoice the price of the packages, hampers, or boxes. I checked the empties myself, and always advised and was careful to see each package had on my name. One firm of sundriesmen I deal with stencils the price on every package; all I have to do is to take account of the number of packages and price. I invariably get their credit notes very shortly, and correct. I also buy from a firm of wholesale chemists who supply proper printed forms to fill up. The price charged by them is in many cases below the market value, their hampers all go by size—viz, one dozen and upwards, and are marked with the usual notches. They give no trouble excepting that their boxes are not stencilled.

I have lately left two patent houses through trouble with their empties. I have before me the credit-note of one drug-house. It is a piece of paper, with just their heading and ruled underneath with money columns (no printed list). It is impossible to make out what it means; it looks like a copy of Egyptian hieroglyphics. I shall keep it as a relic of what it was possible for a business house in London to do in the nineteenth century. This house charges for bottles, &c., as "Borax" observes, almost twice their value.

The drysaltery houses beat all. Three houses I know. I have their address labels before me. No name of sender appears on them; the only way of distinguishing them is by the writing, which on one can be read and on the other two cannot. One of these houses usually takes three weeks or a month before sending credit-note, and then it is always wrong. The others rarely send correct prices. Their answers are: "It is the railway company who give such trouble and do not deliver properly"! If so, I say, why does the railway company immediately deliver my empties to other houses? No answer. The troublesome houses, whose names I leave my brother chemists to guess, remind me of the boy and the grindstone. A boy was grinding tools on a stone near a wall, and every time he turned the handle he knocked his fingers. A man passing by showed him that if he moved the stone one inch away from the wall he would save his fingers from being bruised. His answer was, "Let it alone; it did very well for father, and it does very well for me."

Of course there are two sides to the question, and the wholesale houses may have something to say; but I can show by my letter-book and by their answers that they are generally careless and in the wrong, and the corrected credit-notes make the excuses, "Our warehouseman omitted to properly credit. We apologise for error, and hand corrected credit-note." In one case recently I had a special visit from a traveller to apologise; but when I asked why they did not alter their system, he said the partners would not alter. I offered to pay for a set of stencils, but of no use. It did very well for father, &c. Yours truly,

P. V.

The Italian Pharmacopœia.—A pharmacist at Nice writes:—"Your correspondent writing from Mentone forgets that before the cession of the Comté de Nice and Savoy to France the authorised Pharmacopœia, even for Mentone, was the Sardinian, published at Turin; that Tuscany had a Pharmacopœia of its own, and which, I am informed by a Florentine chemist, is still in use, and forms, or will form, the base of the Italian one in course of compilation. The kingdom of the Two Sicilies also had its Pharmacopœia. With regard to the Papal States, my informant is not certain, but they probably followed the Tuscan, consequently it is very possible that the Sardinian Pharmacopœia is still followed in the East where Italian relations exist."

Nottingham Chemists' Association.

SIR,—As an old student of the Nottingham Association, allow me to state that the remarks of Mr. Carteighe con-

cerning the local chemists are hardly correct. He rightly gives much credit to the University College, but far too little to the local Chemists' Association. The Association has had classes since 1868, which, until the opening of the college, were conducted by local chemists; but, when the college was opened, the Council saw at once it would be the means of more thorough education for their students if they could get their classes under the direction of the University professors. This was arranged with business-like promptitude, the association sparing neither effort nor expense (as they pay half-fees) to give their students the fullest possible advantage of the University College.

I do not agree with Mr. Cartcighe that the local chemists are the depressed and dispirited set he has dubbed them.

I must also add that too much praise cannot be given to Professor Clowes for his ready co-operation and efficient teaching, and I am glad to learn it has shown its worth to the examiners at Bloomsbury Square.

Yours truly,

Nottingham, June 11. JAMES STANLEY.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

64/68. **Darkening of Mixtures.**—*Ether* asks why a mixture containing potass. bicarb., ʒiv.; tr. nuc. vom., ʒiij.; aq. chlorof., ad ℥xij., should darken. Most mixtures containing vegetable tinctures and alkali do darken, especially if the alkali is a hydrate or carbonate. In this case the bicarbonate is partially changed to carbonate.

Hair-wash.

SIR,—The following recipe has been brought to me to be dispensed twice:—

Ol. eucalypte (*sic*)	1 fl. drachm
Creosote (Morson's).. ..	1 fl. oz. 1 fl. drachm
Aq. lavand.	2 fl. drachms

M.

On the first occasion I asked the gentleman who brought it—a foreigner—if he would kindly see if it had been correctly copied, as I understood it had been taken from a book.

The second time I pleaded that I thought the preparation too strong and likely to injure the scalp.

Since then it has occurred to me that I was unduly timid, and that the ill effects which have been described in works on therapeutics as following the free external use of creosote might have resulted from the substitution of impure carbolic acid for the pure beech-tar product.

Will you favour me with your opinion, and allow me to ask any of your readers who have met with a similar prescription what course they adopted.

Yours, very obediently,

Dover, June 2. J. F. BROWN.

[Our experience agrees with the general belief that *pure* creosote does destroy the cuticle.—ED. *C. & D.*]

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

64/55. *S. E.*—**The Red Billiard Ball.**—See February 15, page 240.

55/37. *Querist* sends some **Fever-powders** which are used for children and adults. Each powder weighs about 10 grains, and consists of nitrate of potash, with a little ginger, and cochineal to colour.

72/48. *T. B.*—Turpentine liniment should suit your purpose.

55/45. *K. T.*—Applied electricity is a big subject, and has several departments. You do not say which you want. The following books are published by Crosby Lockwood & Co.:—Swinton's "Electric Lighting" (1*s.* 6*d.*), Noad's "Student's Text-book of Electricity" (12*s.* 6*d.*), Watt's "Electro-Metallurgy" (3*s.* 6*d.*).

44/24. *E. K. S.*—As far as can be judged from the appearance of the sample of **Raisin Wine** which you have sent, the temperature during fermentation has been above the normal, so that acetous fermentation has set in. This can only be effectually stopped within twenty-four hours after it is discovered, heating to about 140° F. being the remedy. After the fermentation has stopped, the addition of some spirit is necessary, because part of what has been produced in the wine has changed to acetic acid.

59/61. *Spero.*—The solution used by butchers for dressing the bone part of meat, to prevent flies sticking, is solution of bisulphite of lime. This we judge from the sample which you send.

65/37. *Caryoph.* sends us a sample of **Powder for White Scour** in calves, put up in 1-oz. packets, by a veterinary surgeon in his neighbourhood. It has a high reputation, and is much asked for. We find it to consist of prepared chalk, coloured and flavoured with ginger, pimento, and, apparently, cloves.

68/24. *Cal. c. Sac.* sends us a few teething-powders made by him. They contain simply equal parts of **Calomel and Sugar**, and were quite white when sent out, but were returned to him because they have changed to a grey colour. This is common with such powders. The change is due to the formation of mercurous oxide, and this may result from alkalinity of the sugar, or the absorption of ammonia from the atmosphere. The latter appears to be the cause in the present case. There is no persalt of mercury in the powders.

63/1. *Oils.*—What you really want, we presume, is to tell quickly whether the **Olive Oil** contains cotton-seed oil or not. The best test for that is with nitrate of silver. See our issue of August 3, 1889, page 166, or Proctor's "Manual." For a test to detect sesame oil, see April 12, page 501.

62/59. *Dens.*—See our DIARY for 1889, page 266. Salicylic acid and glycerine combined form an effective preservative for infusions.

62/64. *Associate.*—We do not know of any line of ships on which dispensers are regularly engaged. It is a matter which is in the hands of the surgeon.

61/66. *J. F. B.*—The only information we can obtain from metallurgists is that the **Solution for restoring Discoloured Steel** is made by boiling scraps of tin in a solution of salt of tartar.

57/66. *Alpha* asks what is the best way to grind with ether a gum or resin soluble only in ether, so as to lose as little ether as possible. Mix it with its own weight of sand, reduce to coarse powder, place in a tin percolator, and pour ether upon it just to cover. Leave it so for a day securely covered, then percolate.

62/37. *R. H. K.*—(1) **Red Wood Stain.**—The correspondent who communicated the formula containing this stain in our issue of October 12, 1889, informs us that it is made as follows:—Red wood, ½ lb.; methylated spirit, 4 lbs. Mix in a bottle, and place the bottle in hot water, whereby the solvent power of the spirit on the colouring-matter of the wood is increased. If a deeper colour is required use more red wood. (2) **Mahogany Stain.**—To a quart of strong solution of maroon-lake aniline dye add ¼ oz. of caustic potash, and shake until dissolved. An older-fashioned, but equally reliable, stain is:—

	Oz.
Alkanet root	1
Cape aloes	2
Dragon's blood	2
Methylated spirit	26

Digest for a week and filter.

Wash the wood with nitric acid before applying the stain, and repeat the application of the latter until the colour is what is required.

62/25. *Lancashire.*—A weekly application of Leeming's essence produces the growth of silky hair on horses' legs. When the hair is being cast this essence is found to be useful.

63/63. *A. J. W.* is **Entering Business** on his own account, and wishes to know what recipe-books he will find most useful. We should advise him to obtain THE CHEMISTS' AND DRUGGISTS' DIARIES for the past four years, and look out for any offers of volumes of THE CHEMIST AND DRUGGIST that are made through our Exchange column. He will find in these selections of specialities of all kinds, and his own experience must tell him which he will find it pay to "run." He should also secure our series of manuals.

64/47. *Jason.*—**Testing Lard.**—You cannot do better than get a copy of Mr. Proctor's "Pharmaceutical Testing," which contains simple directions under "Adeps Preparatus."

64/71. *Scottie.*—Please look over a few of our back volumes. You will find what you want in them.

65/51. *Fertort* (Turin). — **Pick-me-Up.** — There is no general formula for this. A pick-me-up is simply a tonic draught, somewhat like a liqueur. The following is good:—

Essence of ginger	10 drops
Aromatic spirit of ammonia	½ drachm
Tincture of gentian	1½ „
Compound tincture of cardamoms	3 „
Syrup	½ oz.
Chloroform water, to	2 „

Mix, and take as a draught.

This can be made up extemporaneously, and 10 minims of tincture of nux vomica may be added. For a stock preparation the following is a good formula:—

	Oz.
Gentian root, sliced	2
Cardamom seeds, bruised	¼
Cusparia bark „	½
Ginger root „	½
Cinnamom bark „	½
Cinchona bark „	½
Fresh orange-peel	2
Fresh lemon-peel	½
Cochineal	¼
Raisins	3
Aromatic spirit of ammonia	4
Rectified spirit	4
Chloroform water	10

Powder the cochineal, and macerate it in the aromatic spirit of ammonia for an hour; then add the spirit and water, and the rest of the solid ingredients, and macerate for ten days, shaking twice daily. Strain, press, and filter, and make up to 1 pint with simple syrup.

The dose of this is 1 oz. with as much water.

63/65. *Bark.*—Has bandoline failed to keep the retriever's hair in curl?

63/74. *J. H. Smith.*—The substance is celluloid, which is easily distinguished from other articles of a like nature by its odour of camphor, which is readily smelt on scraping.

65/36. *Coma.*—17*s.* 6*d.* to 20*s.* would be a fair charge for the hair-wash, which is a ridiculous one.

65/44. *S. R.*—You will find full particulars in Proctor's "Pharmaceutical Testing" for the examination of citrate of lithium. We cannot undertake to prove the purity, or otherwise, of drugs and chemicals bought by our subscribers in the ordinary course.

65/6. *Vinolia.*—The "Ajour" appears to be stiffened with gum arabic. This you can, however, determine by digesting a large piece in water and applying a few tests.

67/48. *Food Preserver.*—All the formulæ which we have published are "good," and we cannot spare space to repeat them. Boracic acid is the active ingredient, and may be used alone. It is most efficacious with borax.

67/36. *Prandium* makes a **Varnish for Culinary Purposes** according to the following formula:—

	Oz.
White shellac	1
Absolute alcohol	1½

Rectified spirit, to thin.

Cook says this separates "like mint-sauce"; he doubtless means thereby that the fat of the shellac is deposited. The remedy for that is to filter.

65/70. *Caution.*—An old-established firm in British Guiana write to us to "caution wholesale houses against giving credit and executing orders from persons they know nothing of." The prudence recommended is essential to prosperity, but we cannot say that the advice thus offered is strikingly original. We presume, however, there is some basis for it. We give the item for what it may be worth.

Information Wanted.

[*Replies to the following requests are solicited by correspondents of* THE CHEMIST AND DRUGGIST.]

64/24. Maker of West Newman's drying paper for botanists.

64/21. Maker of Midgley's postero nares spray-producer.

67/46. Sheep-dip, with retailer's own name on packets. Where obtainable.

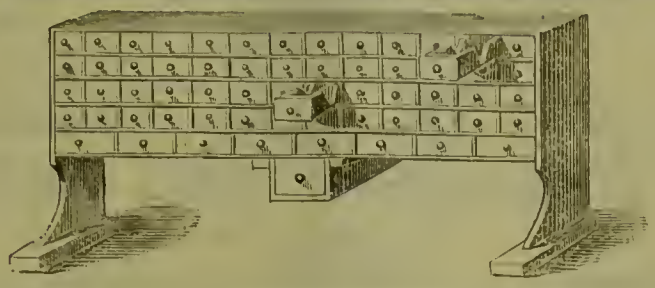
Information Supplied.

62/66. Makers of micro-photographs.—Are micro-photographs or photo-micrographs meant? Micro-photographs are those minute little photographs which usually adorn the handles of little knicknacks to be had at the sea-side, and are prepared by the collodion process and affixed between two little convex lenses. At one time there was a big rage for them, and they were made principally by one firm in Birmingham, who have been beaten by our German cousins till they gave up the trade, or it gave them up. I think the only way to find out a maker would be to find an importer of these knicknacks, and thus hark back to the maker. Messrs. Kotch & Friedländer, 10 Coleman Street, E.C., might be able to supply them or the information. Photo-micrographs are, of course, photographs of microscopic objects.

E. J. W.

THE NEW DRUGGIST'S LABEL CABINET

(PATENTED).



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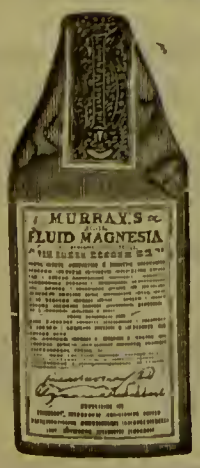
It is the only known Drug which cures that most unpleasant of all maladies, viz., a HEADACHE. In cases of Gout and Indigestion it is indispensable.

AND IN THE NURSERY IT IS INVALUABLE. SPOKEN OF MOST HIGHLY BY ALL THE PROFESSION.



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It is recommended by the most eminent ENGLISH and CONTINENTAL authorities in the treatment and cure of

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Externally, of Diphtheria, Croup, Chronic Eczema, Psoriasis, Ulcers, Boils, Fissure of Tongue, Ear Diseases.

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J. Hurley, M.D., Queen Camel, reports very successful treatment of **Sciatica, Lumbago, Neuralgia, Locomotor Ataxy, Gout in the hand.** W. Paley, M.D., Ripon, of **Sciatica.** B. Walker, M.D., Kirkby Stephen, of **Facial Neuralgia.** J. J. Meacham, Surgeon, Manchester of **Angina Pectoris** and **Neuralgia.** Geo. R. Gordon, M.D., Manchester, of **Henneronia** and **Neuralgia.** J. Young, M.D., Edinburgh, of **Neuralgia.** A. W. Martin, L.R.C.P., Manchester, of **severe Neuralgia**

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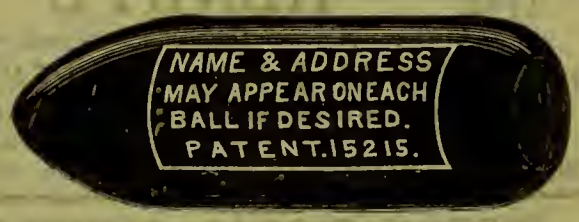

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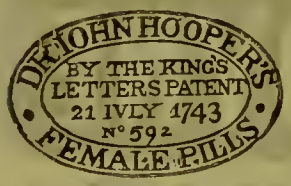

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In COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c., its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

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COUGHS,
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SPASMS,
HYSTERIA,
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DYSENTERY,
CHOLERA,
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Sea-Sickness, &c.

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Ditto	2 9	1 3 0
Ditto (3 fluid oz.)	4 6	1 16 0
Ditto (8 „)	11 0	4 13 0
Liq. Chlorodyni (*Original and only Genuine Preparation*) ½ lb.	2/6 each	For dispensing purposes.
Ditto ditto ½ lb.	4/6 „	
Ditto ditto 1 lb.	8/- „	
Winchester Quarts (6 lb.) 7/6 per lb., bottles free.		
Towle's Antibilious Pills	1 1½	0 8 6
Ditto	2 9	1 3 3
Towle's Chlorodyne Lozenges	0 7½	0 5 6
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Ditto In bulk, bottles free, containing 1 lb., 2/9 each.		
Ditto ditto 1 lb. 10 oz., 4/6 „		
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Ditto	1 6	0 14 0
Ditto	2 6	1 4 0
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Floral Extract, 3/6, 5/-, 10/6, 21/-
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Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with. (*See* "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

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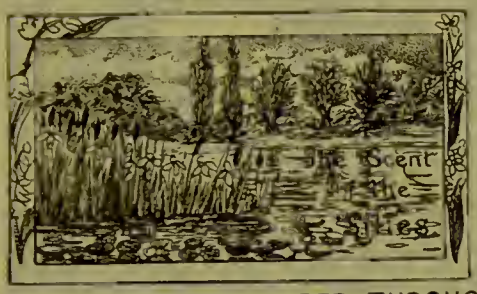

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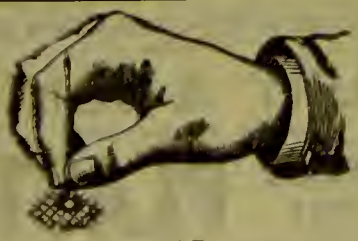

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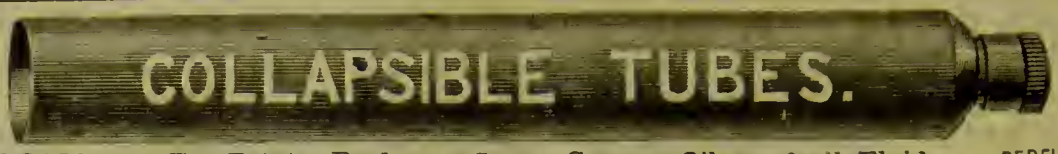

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RECOMMENDED BY MEDICAL MEN.

Warm, Soft, and Dry. Easily Washed. Clean, and Durable.

BATHERS! Step from the Bath on to Rankin's Cork Mats. They Prevent Chills in Bathing, and keep the feet warm and comfortable.

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CAUTION.—Each Genuine Mat branded "Rankin's Cork Mat."

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WHICH IS CHANGED BY HEAT TO A JET BLACK.

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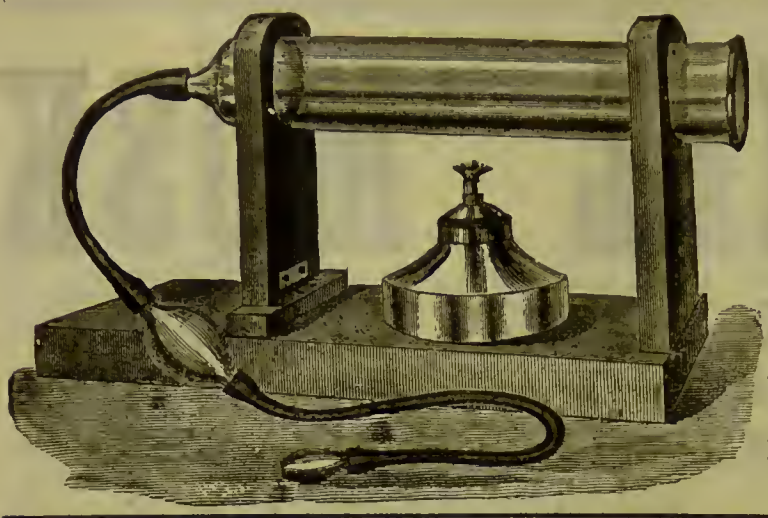

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The simplest Apparatus yet introduced to the profession.
Requires no strong caustic or acid liquids.
Fumes are invariably neutral.

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BATH AND FLESH GLOVES

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No. 110V. 1d.

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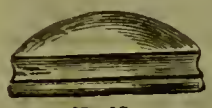

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3 dozen on Attractive Card.

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Nos. 188–9.

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The most inexhaustible it is possible to produce.

Price per lb. in bulk, 2/2, ready Scented.

Nos. 188-9. Peacock Blue, Globe Stoppered English Bottles, neatly put up, and filled with "Ever-fresh" Salts.

No. 188, 6d., 3/9 doz., 40/ gross., 1 doz. in box.
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These will prove a saleable line at this season.

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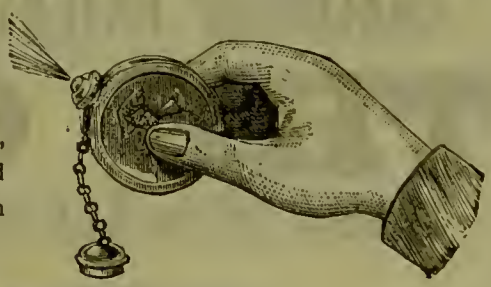
A new and pretty line, made of highly polished Nickel, very simple in its action.

Each in a box, 8/ doz.



ENGLISH CUT-GLASS BOTTLES, SPLENDIDLY STOPPERED.

E 1. Small Watch, globe stoppered	3/6 doz.
E 2. Medium „ „	4/- „
E 3. Preston, globe stoppered, the words "Preston Salts" stamped in the glass	4/6 „
E 4. Dwarf Jar, square stopper, very cheap ...	4/- „
E 5. Very best cut bottle possible, watch-shape, polished neck, globe cut stopper ...	9/- „
E 6. Similar to No. 5, but larger	18/- doz.
E 7. Small Preston, plain cut globe stopper ...	3/6 „
E 8. Tom Thumb squat „ „ ...	3/- „

☞ Above Lines are suited to the highest class trade, as no better workmanship could be produced.

☞ Send a sample order for some of above, and you cannot fail to be pleased, as the stoppers fit PERFECTLY. English Bottles never been offered so cheap before.

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Guaranteed to contain Perfectly Pure Drugs.

No. 25. Copaiba Balsam ...	... 3 doz. in oval box	...	6/-
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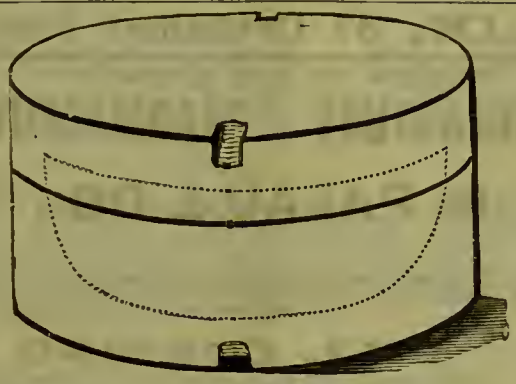
IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

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1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/8	1/10	2/	2 3	2/10	3/6	4/6	5/6 per doz.

THIN FOR DISPENSING—

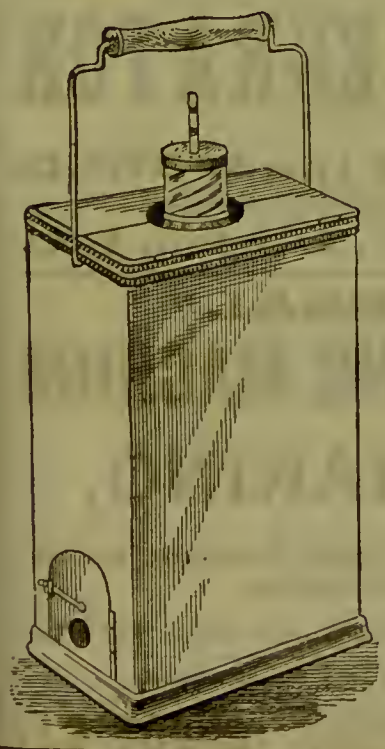
½	¾	1	1½	2	3	4	6	8 ounces.
1/7	1/9	2/	2/2	2/5	3/	4/	5/	6/ per doz.

THE LACTOTHERME

(REGISTERED TRADE MARK) OR

INFANTS' PORTABLE MILK STOVE,

Patented in England and Abroad.



ADVANTAGES.

The Lactotherme heats milk exactly to the proper temperature at which it should be given to Infants, viz., 98 degrees Fahrenheit, this being the temperature of the milk from the mother's breast.

The Lactotherme does not cause the milk to turn sour.

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The Lactotherme is portable, and may be as effectively used in a Railway Carriage as in the Nursery.

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Each Apparatus is furnished complete with Thermometer, Box of Prepared Carbon, Box of Wicks, and Float.

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51/- per dozen.

SOLE AGENT FOR DR. LEE'S STEAM DRAFT INHALERS.

NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.

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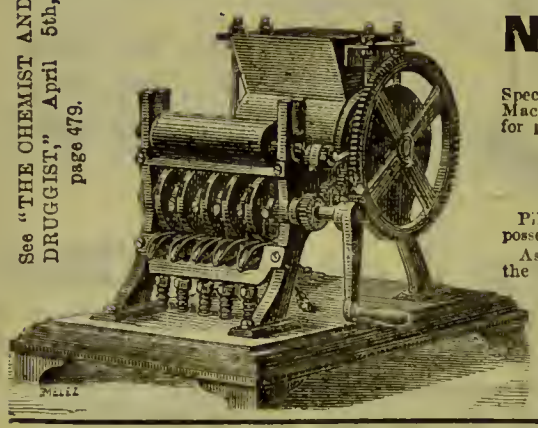

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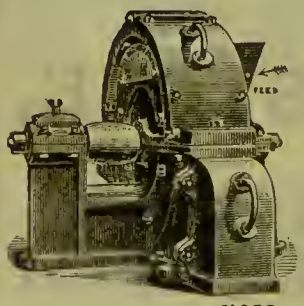

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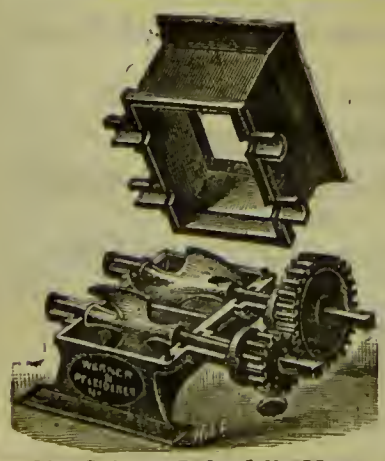

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ALSO FOR

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Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

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In round cakes in 2-lb. parcels, or in oblong cakes, loose } in cases of 54 lbs
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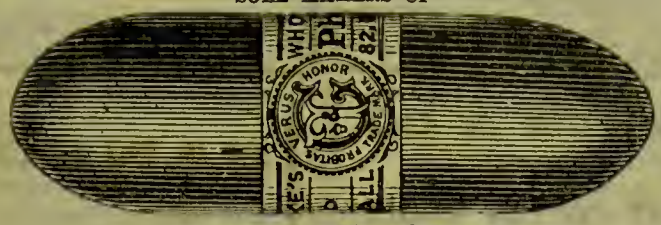

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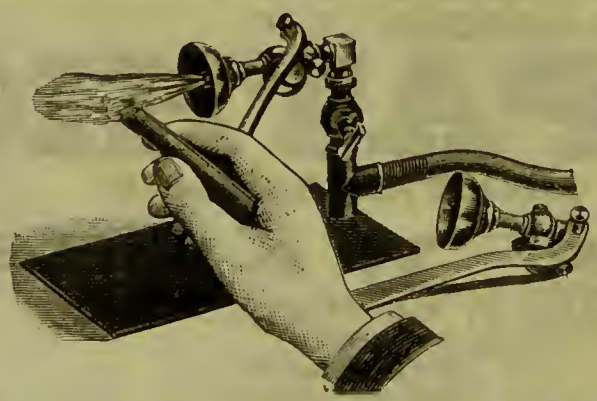

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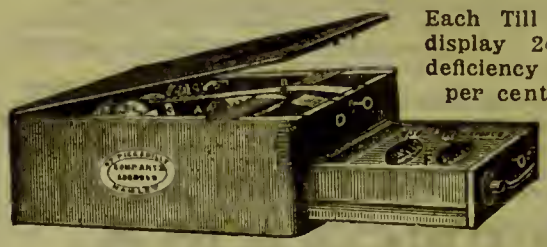

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